DOCUMENT RESUME

ED 407 890 HE 030 135

| | |
|---|---|
| AUTHOR | Carter, Deborah J.; Wilson, Reginald |
| TITLE | Minorities in Higher Education. 1993 Twelfth Annual Status Report. |
| INSTITUTION | American Council on Education, Washington, DC. Office of Minorities in Higher Education. |
| SPONS AGENCY | Philip Morris Inc., New York, NY. |
| PUB DATE | 94 |
| NOTE | 88p.; For the 1992 annual report, see ED 363 250. |
| AVAILABLE FROM | American Council on Education, Publications Department M, One Dupont Circle, Washington, DC 20036 ($15 each for 1-10 copies, $14 each for 11-50 copies, $12 each for over 50 copies). |
| PUB TYPE | Numerical/Quantitative Data (110) -- Reports - Evaluative (142) |
| EDRS PRICE | MF01/PC04 Plus Postage. |
| DESCRIPTORS | American Indians; Asian Americans; Black Students; College Students; *Degrees (Academic); Educational Finance; Enrollment Influences; *Enrollment Trends; *Ethnic Groups; Financial Problems; *High School Graduates; Higher Education; Hispanic Americans; *Minority Groups; Racial Differences; State Aid; Statistical Data; Tables (Data); *Trend Analysis |
| IDENTIFIERS | African Americans; Asian American Students; Hispanic American Students |

ABSTRACT

This report provides an overview of the available racial and ethnic data on high school completion rates, college participation and enrollment trends, and degrees conferred for the period 1972-1992. Major data sources are reports of the U.S. Bureau of the Census and the National Center for Education Statistics. The report also includes a special focus on efforts to improve the retention of students of color in higher education. The focus provides detailed national persistence and completion data for African Americans, Hispanics, Asian Americans and American Indians at 2-year institutions, 4-year institutions, and graduate and professional programs. Trends identified include the following: (1) the gender gap in the high school completion rate continues especially for Hispanics, with males graduating at a rate of 52 percent and females at a rate of 62.8 percent in 1992, while overall Hispanics still trail African Americans and whites by a large margin in overall high school completion rates; (2) the high school completion rate for African Americans is 74.2 percent in 1992, or down two percentage points since 1990; (3) Hispanics and African Americans remain under-represented in higher education, with 33.8 of African Americans and 37.1 percent of Hispanic Americans who are high school graduates aged 18-24 participating in higher education, compared to 42.2 percent of similar whites. Twenty-six tables provide detailed statistical data. (JLS)

**********
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
**********

ED 407 890

# Minorities in Higher Education

Deborah J. Carter
Reginald Wilson

HE030 135

1993

Eighth Annual

Status Report

BEST COPY AVAILABLE

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Deborah J. Carter

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Additional copies of the *Twelfth Annual Status Report on Minorities in Higher Education* are available from the

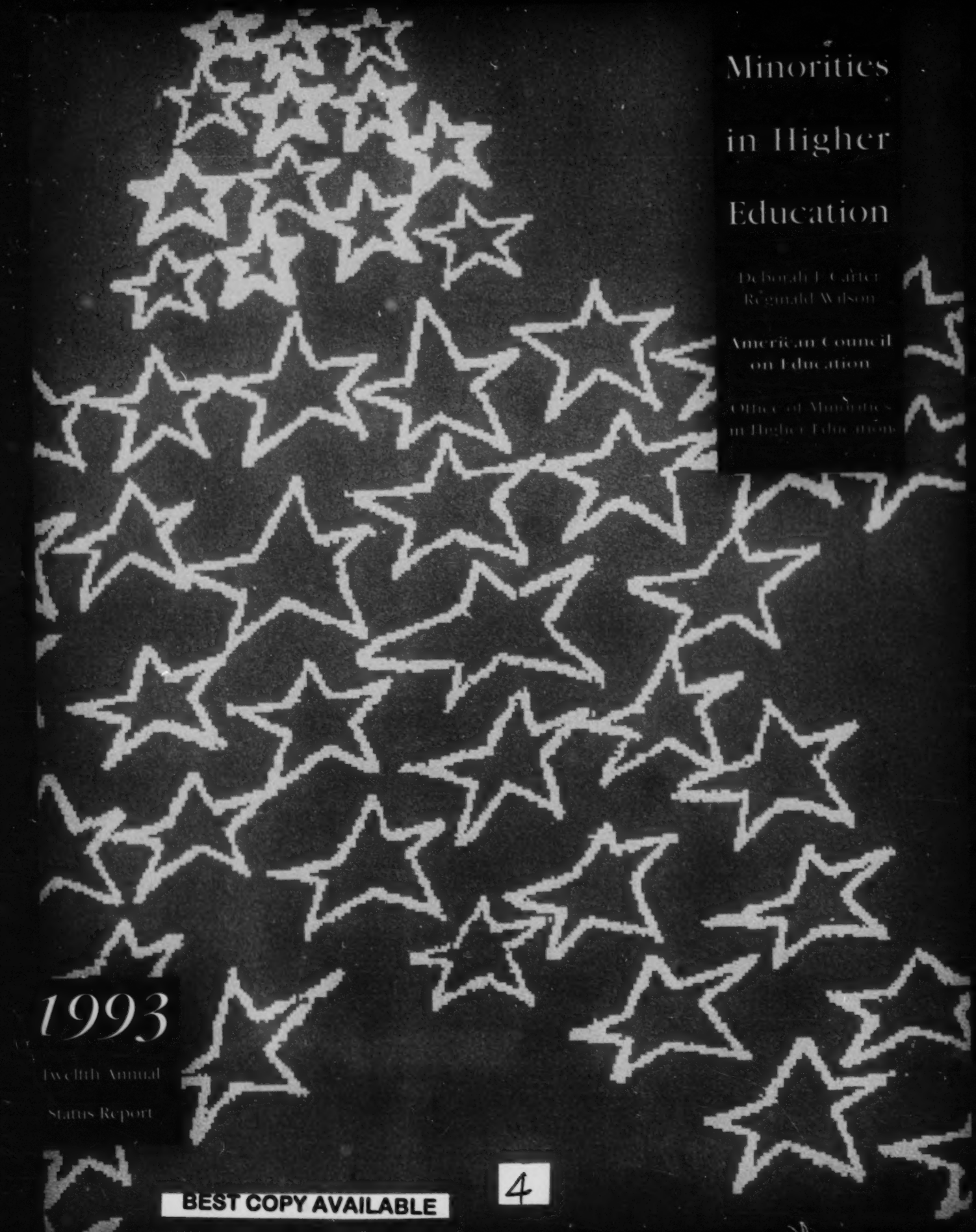
**American Council on Education**

Publications Department M
One Dupont Circle
Washington, DC 20036

Charges for copies are as follows:

| | |
|---|---|
| 1-10 copies | $15.00 each |
| 11-50 copies | $14.00 each |
| Over 50 copies | $12.00 each |

***All orders must be paid by check, money order, or credit card (Master Card or Visa).***



# Minorities in Higher Education

Deborah J. Carter
Reginald Wilson

American Council on Education

Office of Minorities in Higher Education

1993

Twelfth Annual Status Report

BEST COPY AVAILABLE

# Acknowledgements

The Office of Minorities in Higher Education of the American Council on Education (ACE) is pleased to issue this *Twelfth Annual Status Report on Minorities in Higher Education*. We hope the special focus on improving the retention of students of color will be helpful to administrators and policy makers who are seeking to increase the college graduation rates of African American, Hispanic, and American Indian students. We wish to acknowledge the outstanding work of Charles Dervarics, a principal contributor to this report; Boichi San, data services coordinator at ACE; and Donnetrice Barbee, for her research assistance. Without the support of Linda Mabrey, Lachone Fuquay, Kelly Stern, and Wendy Bresler, this report would not have been possible. Special thanks are also extended to those who served as reviewers, especially Charles Andersen and Elaine El-Khawas. This report has been produced with the support of a grant from the Philip Morris Companies, Inc.





Copyright © 1994
American Council on Education
All Rights Reserved

# Table of Contents


FOREWORD ..... iv
EXECUTIVE SUMMARY ..... 1
- High School Completion Rates ..... 1
- College Participation ..... 1
- College Enrollment ..... 2
- Degrees Conferred ..... 2
- State Trends in Bachelor's and Associate Degrees ..... 2
- Special Focus: Improving the Retention of Students of Color in Higher Education ..... 4
  - Environmental Factors and Minority College Completion ..... 5

HIGH SCHOOL COMPLETION RATES ..... 6
- A Varied Gender Gap ..... 7
- High School Completion by Asian Americans and American Indians ..... 7

COLLEGE PARTICIPATION RATES ..... 8
- African Americans ..... 9
- Hispanics ..... 9

COLLEGE ENROLLMENT TRENDS ..... 11
- African Americans ..... 11
- Hispanics ..... 12
- American Indians ..... 13
- Asian Americans ..... 14

DEGREES CONFERRED ..... 15
- African Americans ..... 15
- Hispanics ..... 16
- Asian Americans ..... 17
- American Indians ..... 17

DEGREES CONFERRED BY FIELD ..... 18
- African Americans ..... 19
- Hispanics ..... 19
- Asian Americans ..... 20
- American Indians ..... 21
- Doctoral Degrees ..... 22
  - Doctorates by Field ..... 22

STATE TRENDS IN BACHELOR'S AND ASSOCIATE DEGREES ..... 23
- General Trends ..... 23
- African Americans ..... 24
- Hispanics ..... 25
- Asian Americans ..... 26
- American Indians ..... 26

SPECIAL FOCUS: IMPROVING THE RETENTION OF STUDENTS OF COLOR IN HIGHER EDUCATION ..... 28
- African Americans ..... 29
- Hispanics ..... 30
- Asian Americans ..... 31
- American Indians ..... 32
- Environmental Factors and Minority College Completion ..... 32
  - Institutional Commitment to Student Retention ..... 32
  - Faculty Involvement ..... 33
  - Academic Support Services ..... 33
  - Campus Climate and Institutional Environment ..... 34
  - Financial Support ..... 35
- Case Studies: Colleges that Graduate Minority Students at Above-Average Rates ..... 35
  - California State University, Dominguez Hills ..... 35
  - Mount Saint Mary's College ..... 36
- Policy Implications ..... 37
- Conclusion ..... 38

NOTES ..... 39
APPENDIX ..... 42
TABLES ..... 43

# Foreword

This *Twelfth Annual Status Report on Minorities in Higher Education*, released by the Office of Minorities in Higher Education (OMHE) of the American Council on Education (ACE), attempts to summarize the latest available racial and ethnic data on high school completion rates, college participation and enrollment trends, and degrees conferred. As in previous years, primary data sources for this report include the U.S. Bureau of the Census Current Population Reports and the Higher Education General Information and Integrated Postsecondary Education Data System survey reports of the U.S. Department of Education's National Center for Education Statistics (NCES).

Because U.S. Census Bureau data on high school completion and college participation rates for Asian Americans and American Indians are not available on an annual basis, these data are not included in this report. We emphasize the need for such data and encourage the federal government's data collection systems to improve their annual national data collection efforts and to monitor the college-going patterns of all racial and ethnic groups.

In addition, it is equally important for state higher education coordinating boards and governing boards to ensure the annual collection and reporting of racial and ethnic college enrollment and earned degree data by institution. Each year, the U.S. Department of Education must provide estimates for some of this data, particularly at two-year colleges, because of nonreporting or underreporting by colleges and universities. Nationwide, all colleges and universities are under federal mandate from the U.S. Department of Education's Office of Civil Rights to report this data.

This year's *Status Report* includes a special focus on efforts to improve the retention of students of color in higher education; the focus provides a detailed look at national persistence and completion data for African Americans, American Indians, Hispanics, and Asian Americans.

# Executive Summary

## High School Completion

• In 1992, Hispanics experienced their largest single-year increase in high school completion rates in 20 years. Whites also showed an increase over 1991 completion rates, while the rates for African Americans demonstrated a slight decline. Despite these changes, Hispanics still trail African Americans and whites by a large margin in terms of overall high school completion rates.

• The gender gap in high school completion continues to be largest among Hispanics, whose completion rates were 52 percent for men and 62.8 percent for women in 1992. Gains among men narrowed the gender gap among African Americans from 6 percent to 4.5 percent. Overall, for the entire population ages 18 to 24, the gender gap is 4 percentage points, with women more likely than men to earn a high school diploma or equivalent degree.

• The high school completion rate for African Americans ages 18 to 24 has remained stagnant since the mid-1980s. For 1992, data indicate that 74.6 percent of African Americans completed high school, down 2 percentage points since 1990. Because of this downward trend, blacks' high school completion rate is less than it was in 1984.

• Asian Americans are more likely than whites and the general U.S. population to complete high school. For American Indians, the completion rate is less than that for whites, Asian Americans, and African Americans, despite progress during the 1980s.

## College Participation

• Despite some progress both this year and over the past four years, Hispanics and African Americans still are less likely than whites to participate in postsecondary study. In 1992, both groups recorded gains in three major indicators of college participation: the percentage of 18- to 24-year-olds enrolled in college; the percentage of high school graduates ages 18 to 24 enrolled in college; and the percentage of graduates ages 14 to 24 who are enrolled in college or have completed one or more years of postsecondary education (also known as the "ever-enrolled" rate). However, as their share of the total U.S. population increases, Hispanics and African Americans remain underrepresented in higher education. In 1992, for example, only 33.8 percent of African American and 37.1 percent of Hispanic high school graduates ages 18 to 24 were participating in higher education, compared with 42.2 percent of whites.

• More Hispanics, both men and women, are enrolling in colleges and

*Photo credit: John Vecchiolla, Sleepy Hollow High School*

universities. In 1992, college participation rates for all Hispanic high school graduates ages 18 to 24 reached their highest levels in at least 20 years. In one key indicator of participation, the "ever-enrolled" rate, Hispanics showed an increase of 10 percentage points from 1991 to 1992. Data also indicate that for the second consecutive year, Hispanic high school graduates are more likely than African American graduates to enroll in college.

• For African Americans, the largest increases in 1992 occurred among women, while men showed progress in only one of the three categories of college participation. Overall, only 29.7 percent of African American male high school graduates were enrolled in college during 1992, a drop of nearly 5 percentage points in just two years. This rate was more than 4 percentage points lower than the college participation rate of Hispanic male graduates in 1992.

• Increases in participation rates among African American women helped them narrow the gap with regard to white women: In 1992, the gap was only 5 percent, down from 11 percent in 1991. This figure is more consistent with those of the mid-1980s, when the gap between African American and white women's participation rates was between 5 and 6 percent.

## College Enrollment

• All four ethnic minority groups achieved at least small gains in college enrollment from 1991 to 1992, while enrollment of white students decreased slightly. Analysis of the most recent four-year trends indicates increases of 23 to 40 percent for minority groups. Most of the increases for students of color occurred at two-year rather than four-year institutions.

• Men of color recorded enrollment gains similar to those made by women of color between 1991 and 1992. Men of color showed a gain of 6.6 percent for the year, just behind the 7.5 percent gain for women. From 1988 to 1992, men of color registered a gain of 29.8 percent, compared with 33.4 percent for women of color.

• The dramatic enrollment growth registered by Asian Americans during the 1980s has continued into the 1990s. Overall, total enrollment by Asian students nearly doubled over the past ten years, including a 9.4 percent gain from 1991 to 1992. The ten-year increase is the largest among the four ethnic minority groups.

• Hispanic students registered the largest enrollment growth among the four ethnic minority groups from 1991 to 1992. During that time, enrollment among Hispanics increased by 10 percent, including a 12.6 percent increase at two-year institutions. From 1982 to 1992, enrollment of Hispanics in higher education increased by 83.8 percent, a rate that trails only Asian Americans.

• African Americans showed a 26.5 percent increase in college enrollment from 1982 to 1992, a rate that trails Asian Americans, Hispanics, and American Indians. From 1991 to 1992, African Americans realized a 4.3 percent gain, again the lowest of the four groups. Throughout this period, most of the increases occurred because of gains by African American women. Overall, African American women showed gains of about 33 percent over the past decade, compared with 17 percent for men.

## Degrees Conferred

• Students of color made gains in the number of degrees conferred at nearly all levels of higher education from 1990 to 1991. Overall, the increase for minorities was at least three times that for whites at the associate, bachelor's, master's and first professional levels.

• Of the four ethnic minority groups, Hispanics showed the greatest progress at the associate and bachelor's degree levels, primarily because of gains among Hispanic women. At the same time, the dramatic increase in the number of degrees awarded to Asian Americans, which dates back to the 1980s, showed some signs of leveling off in all categories except first professional degrees.

• For the past decade, most of the progress among African Americans in terms of degrees conferred has been the result of gains by women. At the bachelor's level, an overall gain of 7.7 percent from 1981 to 1991 included a 13.4 percent increase for women but no gain among men. This trend also was striking at the first professional level, at which African American women achieved gains of 64 percent between 1981 and 1991 whereas the number of degrees awarded to men decreased by 5.6 percent. African American women also showed greater gains than men from 1990 to 1991 in all four major degree categories.

• Students of color continued to return to the fields of education and the social sciences, reversing a trend from the 1980s. The number of bachelor's degrees in education awarded to minorities increased by 12 percent in 1991, while the number of degrees awarded to minorities in the social sciences increased by 10.9 percent at the bachelor's level and 12.8 percent at the master's level. Increased interest in social sciences was particularly evident among African Americans.

• Of the four ethnic minority groups, Hispanics recorded the largest increases in the numbers of bachelor's degrees awarded in education, business, and social science. Asian Americans—following a long period of dramatic progress—failed to show the largest one-year growth in any field at the baccalaureate-degree level.

## State Trends in Bachelor's and Associate Degrees

• Between 1981 and 1991, 47 states showed growth in the total number of bachelor's degrees awarded, and 44 recorded gains at the associate level. In many states, Asian

*Photo credit: Dillard University*

Americans and Hispanics surpassed African Americans, American Indians, and whites in terms of their percentages of undergraduate degree growth. As a result, African American and white students in those states received smaller shares of associate and bachelor's degrees in 1991 than in 1981.

• In 30 states and the District of Columbia, African Americans showed some increase in terms of the number of bachelor's degrees received. But increases in most states did not keep pace with overall degree gains in those states. Of the states where the largest African American populations reside, Maryland and Virginia registered the largest percentage increases in the numbers of bachelor's degrees awarded to this group. Conversely, sizable losses were recorded in a number of southern states, including Alabama (13.8 percent), Mississippi (15.9 percent), and Tennessee (13.2 percent). These losses are particularly disturbing given that they were cited specifically in the Adams case, which was supposed to have improved educational opportunities for African Americans.

• Hispanics recorded increases in the number of bachelor's degrees earned in all but seven states. Among states with the largest Hispanic populations, western states indicated some of the greatest gains. For instance, Hispanics in California achieved a 64.9 percent increase in the number of bachelor's degrees awarded; Arizona, Washington, and Nevada doubled the number of degrees awarded to Hispanic students.

• Between 1981 and 1991, Hispanics showed gains at the associate level, but at a slower rate than at the bachelor's level. In California, they experienced a relatively small gain of 4.9 percent. Hispanics registered associate degree gains of 23.2 percent in New York, 43.7 percent in Florida, and 43.2 percent in Texas.

• Only four states failed to show an increase in the number of bachelor's degrees awarded to Asian Americans. Among the 20 states with the largest

Asian American populations, 15 more than doubled the number of bachelor's degrees conferred to Asian American students. Among these states were New York (where Asian Americans earned their second-highest number of bachelor's degrees in 1991), Illinois, Massachusetts, New Jersey, Pennsylvania, and Texas.

• In western states, where Asian Americans and Pacific Islanders are most populous, they also experienced considerable growth, but at a somewhat slower pace. In California, Asian Americans achieved an increase of 90.7 percent in bachelor's degrees. However, Hawaii, the state with the largest percentage of Asian Americans and Pacific Islanders, had one of the smallest baccalaureate degree gains for this group—just 11.3 percent.

• The state-by-state analysis shows varied progress for American Indians between 1981 and 1991, with 24 states showing some increase in the number of bachelor's degrees earned and 21 states showing increases in the number of associate degrees earned. However, only 19 states indicated gains both in the number and proportion of bachelor's degrees conferred to American Indians.

• Alaska showed dramatic progress, as the number of American Indians earning bachelor's degrees nearly tripled between 1981 and 1991. Oklahoma, South Dakota, Arizona, and Florida joined Alaska as states in which the number of bachelor's degrees awarded to American Indians increased substantially. However, progress at the bachelor's level was tempered by declines in several key states, particularly in the southwest and the west. Data from California suggested a slight (4.4 percent) decline, while data from Texas and New Mexico indicated greater losses—21.8 percent and 17.1 percent, respectively.

# Special Focus: Improving the Retention of Students of Color in Higher Education

• College attrition rates continue to be high for all students, but they are most pronounced for African American, Hispanic, and American Indian students, who withdraw from college at higher rates and therefore attain baccalaureate degrees at appreciably lower rates than their white and Asian American peers. Yet, when differences in academic preparation and socioeconomic status are controlled, the retention rates of students in these groups are equal to those of white students.

• Although African Americans made considerable enrollment progress in the mid-1980s, the number of undergraduate degrees they earned during the early 1990s kept pace with earlier enrollment gains. African American students continue to complete college at one of the lowest rates: approximately one-third of all African American four-year entrants graduates within six years.

• Most research indicates that the overwhelming majority of students who drop out of college do so during their first two years. However, a recent U.S. Department of Education longitudinal study shows that third-year attrition rates for African Americans on four-year campuses were higher than their first- or second-year rates, as well as being higher than the third-year attrition rates of students in other racial and ethnic groups.

• Hispanics are attending and graduating from college in greater numbers. Much of this growth in college participation is linked directly to their population growth. However, despite their increased representation among undergraduates and college graduates, Hispanic students, like African American students, complete college at a lower rate than the general student population: 41 percent of four-year institutions' Hispanic entrants graduate, compared with 54 percent of all four-year institutions' entrants.

• National persistence and completion data are not available for each Hispanic sub-group. However, if college completion patterns for Mexican Americans, Puerto Ricans, Cuban Americans, and South Americans are similar to their high school completion and college participation patterns, considerable variation in college graduation rates by national origin is likely.

• Of students who entered public two-year colleges, Hispanics had the highest three-year persistence rate (39 percent) but the lowest degree attainment rate (13 percent). For Hispanic students at public four-year institutions, attrition was greatest during their first two years, with nearly one-quarter leaving college, compared with only 8 percent leaving during their third year.

• Asian American students have the highest persistence and degree attainment rates of all racial and ethnic groups. But again, as with Hispanics, variation according to national origin is likely. On average, 55 to 65 percent of Asian American students who enter four-year institutions earn a bachelor's degree within five and one-half to six years.

• National data on American Indians' college persistence and degree attainment rates are virtually non-existent. However, according to the limited data that are available, American Indians persist in college at the lowest rate of all postsecondary entrants. American Indian freshmen receive baccalaureate degrees at rates slightly below that of African Americans. On average, only 30 percent of all American Indians who enroll at four-year colleges graduate within six years.

• Other findings with regard to persistence and completion rates include the fact that women of all racial and ethnic groups graduate

from college at rates slightly above their male counterparts. Also, on average, independent colleges and universities graduate students at a higher rate than public institutions.

## Environmental Factors and Minority College Completion

• Colleges and universities, regardless of mission, type, size, or location, can improve the retention of students of color by creating environments that improve the achievement of all students. Student recruitment and retention efforts are most successful when one coherent, comprehensive, and integrated process is institutionalized from the boardroom to the classroom.

• To be effective, a student retention strategy requires the institution's governing board and president to make a commitment to this goal. Ethnic and racial diversity on the board and on the president's staff and a clear willingness to allocate resources and tie faculty rewards to student retention are but a few concrete demonstrations of the kind of leadership that is required.

• Studies of both minority and majority campuses have shown that academic performance is closely related to college satisfaction, high levels of involvement in college life, and favorable relationships with faculty members. Consequently, it is essential that colleges and universities increase the number of student-oriented faculty, staff, and administrators, both majority and minority, who are committed to implementing effective institutional practices for improving student retention, who will help mentor students, and who will serve as role models.

• "Faculty involvement" refers not only to their role in students' classroom experiences, but also to active faculty participation in academic retention efforts and to their role in creating an environment within the academic department that sets high expectations for minority student success.

• Integrated and comprehensive academic support services are vital to reducing student attrition, and proactive academic intervention is most effective during or before the student's first term on campus. Additionally, small-group tutorials have been found to be more effective in the delivery of academic assistance than one-on-one tutorials.

• African American students and other students of color frequently encounter problems of cultural adjustment, social isolation, and racism on predominantly white campuses. The climate of a campus often is affected by the reactions of majority students to what they perceive as "self-segregation" when students of color gather by themselves to study, eat, or socialize. White students often mistakenly perceive students of color—particularly African Americans and Hispanics—as hostile or separatist. However, similar assumptions seldom are made about white students who gather by themselves. These differences in attitudes and perceptions only add to campus tension; they can be addressed through education and interaction between and among different ethnic groups.

• The reduced availability of financial aid is cited frequently as the primary reason for lower participation rates among underrepresented ethnic minorities in higher education. Many education analysts have found that opportunities to pursue higher education are diminishing for low-income students, a high percentage of whom are racial and ethnic minorities.

# *H*igh School Completion Rates

This section highlights the most recent high school completion (HSC) rates for white, African American, and Hispanic 18- to 24-year-olds in the United States, based on the Census Bureau's 1992 Current Population Survey (CPS). These data include students who earned either a high school diploma or an equivalency degree, such as the General Educational Development diploma (GED). The CPS data do not provide year-to-year high school completion rates for American Indians or Asian Americans because the survey sample is too small to provide reliable estimates. Thus, this report relies on other Census Bureau information to describe changes in the completion patterns of these two groups.

Overall, the 1992 CPS shows a sizable increase in high school completion by whites and Hispanics; in fact, each group posted the largest single-year jump in the past 20 years of data collection in this category (Table 1). In contrast, data for African Americans revealed a slight decrease in overall completion rates in 1992 as compared to 1991.



The Census data indicated that changes in completion rates among women accounted for most of these trends. Men in all three racial categories showed at least small gains for the year, while women had a mixed record (Table 2). Hispanic and white women posted significant increases in their completion rates, while the rates for African American women decreased slightly. Overall, however, women in all three racial/ethnic groups still completed high school at higher rates than men.

*Photo credit: Bethune-Cookman College*

The data also indicated continued stagnation of African Americans' high school completion rate. Since 1986, the HSC rate for African Americans has dropped by nearly 2 percentage points. The most recent figures indicate that 74.6 percent of 18- to 24-year-old African Americans completed high school as of 1992, down half a percentage point from the previous year. This six-year period of stagnation followed a period during the 1970s and early 1980s when African Americans made significant gains in high school completion, particularly as compared to whites. With the declines of the past two years, the HSC rate for blacks is now slightly below that of five years ago. It also has dropped more than 2 percentage points since 1990.

Whites had a completion rate of 83.3 percent in 1992, up 1.6 percentage points from the previous year. Coupled with the decrease in African Americans' completion rate, the gap between whites' and African Americans' completion rates is the greatest since 1983. African Americans had narrowed this gap considerably during the 1970s and early 1980s. As recently as 1990, the gap between the two races' HSC rates was only about 5 percentage points; in 1992, African Americans' HSC rate trailed whites' by nearly 9 percentage points.

In 1992, the HSC rate for Hispanics increased to 57.3 percent, a 5.2 percent increase in one year. Both men and women contributed to this increase, as men and women showed gains of 4.2 percentage points and 5.9 percentage points, respectively. Overall, however, the HSC rate for Hispanics remains by far the lowest of the three groups'. In 1992, for example, Hispanics' HSC rate trailed African Americans' by 17 percentage points and whites' by 26 percentage points, even after the large one-year increase.

Figures for the past five years also show that the large increase in Hispanics' HSC rate in 1992 does little more than make up for losses experienced over the past five years. While

*Photo credit: Brough Schamp*

in engineering, an increase resulting almost entirely from women's achievements. Since 1981, the number of Hispanic women earning bachelor's degrees in engineering has more than tripled.

At the master's level, Hispanics achieved less striking gains, in keeping with their underrepresentation at this level of education. Gains were greatest in engineering, where Hispanics posted an 8.6 percent increase, which included a 20.8 percent gain by women and a 6.3 percent gain by men. Gains in the number of master's degrees in education ranked second, with Hispanics earning 7.8 percent more degrees in 1990–1991; women earned 9.2 percent more, and men earned 4.2 percent more.



Women contributed to Hispanics' overall 7.7 percent gain in the number of degrees in public affairs awarded at the master's level. Hispanics posted small percentage and numerical increases in business and the social sciences during this period. The only decrease in the number of master's degrees awarded was in the health professions, where Hispanic men and women contributed to a 3.3 percent overall decrease for the year.

## Asian Americans

From 1990 to 1991, Asian American students showed moderate growth in most fields at the bachelor's and master's degree levels. At the bachelor's level, life sciences showed the most impressive gain (9 percent), with both men and women contributing to the increase. Asian Americans earned 8.4 percent more undergraduate business degrees, and again, men and women contributed equally to the trend. In the social sciences, an 11.8 percent increase by women accounted for most of the overall 6.9 percent gain by Asian Americans. In the health professions, Asian American students achieved a 7.4 percent increase in the number of degrees earned; this was primarily the result of an 18.1 percent increase posted by Asian American men.



The data for degrees awarded in undergraduate engineering provided a clear glimpse of how Asian Americans' massive gains of the past have moderated. From 1981 to 1991, the number of bachelor's degrees awarded to Asian American women more than tripled, yet Asian American women recorded only a 4.3 percent increase from 1990 to 1991. Likewise, the number of bachelor's degrees awarded to Asian American men more than doubled during these ten years, yet the period from 1990 to 1991 showed an increase of only 3 percent.

Data for master's degrees indicated modest gains by Asian Americans in most categories, along with declines in some categories. Asian Americans earned 9.6 percent more master's degrees in education, including an 11.2 percent increase by women and a 4.9 percent gain by men. Asian Americans continued to make gains in engineering at the master's level (9.4

the 1992 rate is Hispanics' highest since 1987, it still is 5 points below the high of 62.9 percent registered in 1985. The 1992 figure may indicate the beginning of an upward trend, yet the rate is still well below those for whites and African Americans. Clearly, these statistics point to the need to address Hispanic students' high dropout rate and the many factors behind it, including immigration, poverty, and the uneven quality of education nationwide.

## A Varied Gender Gap

For most of the past two decades, women have completed high school at higher rates than men in all three groups—particularly African Americans and Hispanics. During the past five years, the gap between men and women has ranged from 2 percentage points to 7 percentage points for African Americans, and from 2 percentage points to 9 percentage points among Hispanics. In 1992, however, the gap narrowed for African Americans but increased for Hispanics (Table 2).

The HSC rate for African American men increased slightly, from 71.8 percent in 1991 to 72.3 percent in 1992. In contrast, the rate for African American women actually decreased by 1 percentage point, from 77.8 percent to 76.8 percent. Thus, African American men were primarily responsible for narrowing the gender gap from 6 percentage points to 4.5 percentage points in one year. (Note that statistical data from CPS vary considerably from year to year. Figures cited are national aggregates, and actual rates for urban and rural areas are lower for some groups.)

In addition, the gender differences experienced by African Americans in 1992 reflect a middle ground between the extremes evidenced over the past five years. For example, the gender gap for African Americans decreased from 7 percentage points in 1989 to 2 percentage points in 1990 and then increased to 6 percentage points in 1991. The 4.5 percent gap in 1992 may provide a more stable picture of the recent trends in this category.

Among the three racial/ethnic groups examined here, the gender gap was greatest among Hispanics, despite gains by Hispanic men in 1992. The HSC rate for Hispanic men increased from 47.8 percent in 1991 to 52 percent in 1992, but the rate for Hispanic women increased even more—from 56.9 percent to 62.8 percent.

While the gain by Hispanic men reversed the rapid decline evidenced in 1991, it again shows little long-term progress. For example, the 1992 rate for Hispanic men was no better than nearly 20 years ago. In comparison, the 62.8 percent completion rate for Hispanic women was the highest since 1986.

Data on white men indicated a small increase in high school completion rates, from 79.3 percent in 1991 to 81.2 percent in 1992. The HSC rate for white women also increased, from 83.8 percent to 85.3 percent, thus maintaining a gender gap of about 4 percentage points. Nationwide, Census data indicated a completion rate of 80 percent for 18- to 24-year-old men in 1992, up from 78.9 percent the previous year. Women's completion rate increased slightly, from 82.9 percent to 84 percent.

## High School Completion by Asian Americans and American Indians

The annual Census survey does not list HSC rates for American Indians or Asian Americans; thus, the following information is based on the 1990 decennial census cited in the *Eleventh Annual Status Report.* This information provides only a one-time snapshot of educational attainment for members of these two races among citizens age 25 and older and is not directly comparable to the high school completion rates of whites, African Americans, or Hispanics. In its discussion of Asian Americans, this report also cites a 1991 Census Bureau analysis of education and earnings of Asian Americans and Pacific Islanders.

In 1990, the Census Bureau indicated that 65.5 percent of American Indians and Alaskan Natives ages 25 and older had completed four or more years of high school.[1] This rate reflects an increase from the 56 percent reported in 1980, but it still trails the 1990 rate of 75.2 percent for the overall U.S. population. These data also reveal wide variations according to geographic location, with states in the Pacific region having the highest rate (70 percent). In comparison, mountain states had the lowest regional HSC rate for American Indians (59 percent). States in the mountain region included New Mexico and Arizona, which are among the top five states in terms of largest American Indian population.

The 1991 Census analysis of the Asian American and Pacific Islander populations indicated a completion rate of 82 percent among those ages 25 and older.[2] This figure slightly exceeded the 80 percent completion rate for whites and the 78.4 percentage rate for the general population. The completion rate for Asian Americans was also 82 percent in the western states, where Asian Americans and Pacific Islanders are most concentrated.

# College Participation Rates

The following two sections examine two important but distinct barometers of access to higher education: college participation and college enrollment trends. Both provide important insights into the education status of America's minorities. College enrollment provides information about attendance data over a specific period of time, while college participation tracks both current enrollment and the recent postsecondary attendance patterns of a given age group, most often youths ages 18 to 24.

Generally, three types of college participation figures are available: the percentage of 18- to 24-year-olds enrolled in college; the percentage of high school graduates ages 18 to 24 enrolled in college; and the percentage of graduates ages 14 to 24 who either are enrolled in college or have completed one or more years of postsecondary education. (This last category also is referred to as the "ever-enrolled-in-college" rate.)

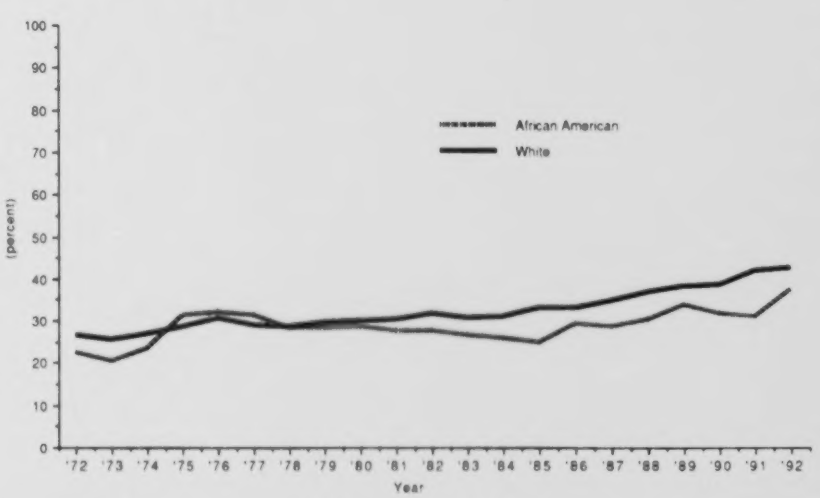
For this report, college participation information is derived from the Census Bureau's CPS. However, this information should be viewed with caution as it provides only the most general outline of participation rates.[3] This section focuses primarily on the "ever-enrolled-in-college" rate, as well as the percentage of all 18- to 24-year-olds enrolled in college.

Information on college enrollment trends is provided by the National Center for Education Statistics. NCES bases its data on the Higher Education General Information Survey and the Integrated Postsecondary Education Data System fall enrollment surveys.[4] Enrollment information on historically black colleges and universities is derived from the annual fall surveys of the National Association for Equal Opportunity in Education.

The sharp decrease in the number of college-age youths that began in the mid-1980s continued through 1992, primarily because of a continuing decline in the number of whites ages 18 to 24. The total population of 18- to 24-year-olds decreased by 16 percent between 1982 and 1992, with the number of whites decreasing by almost 19 percent. But African Americans also contributed to this trend, with a college-age population that decreased by 9 percent over the same ten-year period. In contrast, the number of Hispanics in this age group increased by 37 percent between 1982 and 1992 (Table 1).

Nevertheless, in accordance with past trends, whites are much more likely than African Americans or Hispanics to participate in higher education. In 1992, 35.2 percent of all white 18- to 24-year-olds were enrolled in college, compared to 25.3 percent of African Americans and 21.3 percent of Hispanics. However, data

**Figure 1**
**Enrolled-in-College Rates for 18- to 24-Year-Old White and African American Female High School Graduates, 1972 to 1992**




**Source:** U.S. Department of Commerce, Bureau of the Census, *Current Population Reports, School Enrollment Social and Economic Characteristics of Students: October 1993*, Series P-20, No. 474.

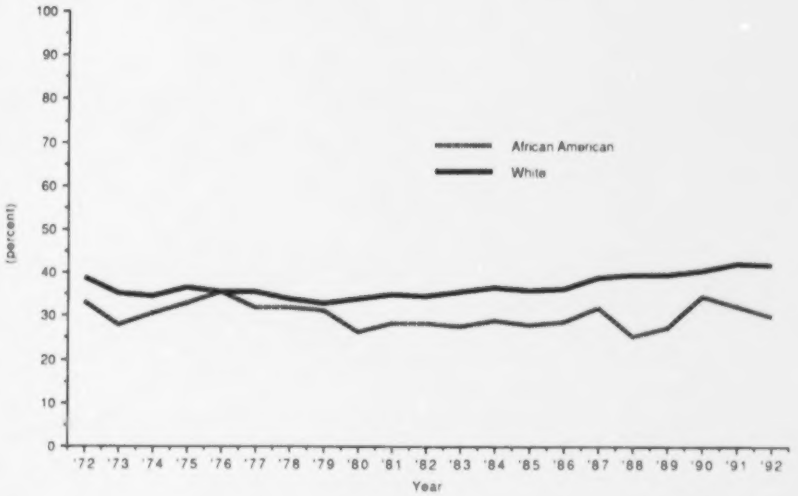
indicate that all three groups recorded gains between 1991 and 1992.

All three groups also have made some progress over the past five years, though again the increase was greatest among whites. Since 1987, whites have posted small gains each year, boosting their enrolled-in-college rate from 30.2 percent in 1987 to 35.2 percent in 1992. In 1987, 22.8 percent of African Americans ages 18 to 24 were enrolled in college. Despite overall progress between 1987 and 1992, however, African Americans failed to make consistent year-to-year gains. A similar trend was evident among Hispanics, who nevertheless increased their college participation rates from 17.6 percent in 1987 to 21.3 percent in 1992. (Note that Hispanics substantially increased their share of the total U.S. population during this period. For example, Hispanics represented 6.4 percent of the U.S. population in 1980 and 9 percent in 1990.[5] Thus, the increases in Hispanics' college participation rate reflect their overall gains among the general population. These gains are evident in all three major indicators of college participation, including the percentage of high school graduates ages 18 to 24 who enroll in college. Trends for this particular indicator of participation are evaluated further in the sections below. Increases in college-going rates should be evaluated in this context.)

## African Americans

Despite making some progress during the past five years, African Americans have yet to significantly reduce the gap between their college participation rates and whites'. In 1992, 33.8 percent of 18- to 24-year-old African American high school graduates were enrolled in college, up from 31.5 percent in 1991 and 30 percent in 1987 (Table 1). But the rate among white high school graduates increased nearly 6 percentage points to 42.2 percent during the same period. Between 1991 and 1992, African Americans did narrow the gap in participation by a small margin; nonetheless, the two groups remain about 8 to 9 percentage points apart.

**Figure 2**
**Enrolled-in-College Rates for 18- to 24-Year-Old White and African American Male High School Graduates, 1972 to 1992**




**Source:** U.S. Department of Commerce, Bureau of the Census, *Current Population Reports, School Enrollment Social and Economic Characteristics of Students: October 1993*, Series P-20, No. 474

African American women experienced a large increase from 1991 to 1992 in terms of the college participation rates of high school graduates (Table 2). In 1992, 37.5 percent of African American women high school graduates were enrolled in college, up from 30.9 percent in 1991. The current figure is the highest figure for this group since CPS began collecting information in 1970. African American women also significantly narrowed the gap in participation rates between themselves and white women. In 1992, the difference was only 5 percent, down from 11 percent the previous year (Figure 1). The 1992 figures are more consistent with those of the mid-1980s, when the gap between African American and white women was between 5 and 6 percentage points.

African American male high school graduates did not fare as well as African American women, with only 29.7 percent enrolled in college in 1992. This represents a 2 percent decrease from 1991, and a drop of nearly 7 percent in two years. Compared to 1987 figures, African American women gained by nearly 9 percent, while African American men experienced a decline of 2 percent. The poor showing of African American males in 1992 contributed to the sizable gap in participation rates between themselves and their white counterparts (Figure 2). In 1992, African American males trailed white males in college participation by 12 percent, up from 9 percent in 1991.

## Hispanics

Despite their traditionally low high school completion rates, Hispanics showed some progress in college participation for the second consecutive year, in terms of both the 18- to 24-year-old population and the "ever-enrolled" rates. Overall, the total Hispanic population ages 18 to 24 had a college participation rate of 21.3 percent in 1992, up 3 percentage points from 1991 and more than 5 percentage points from 1990. Still, these low rates are due primarily to Hispanics' extremely low high school completion rates. As cited earlier, just over half of the Hispanic 18- to 24-year-old population had earned a high school diploma in 1992, a rate that

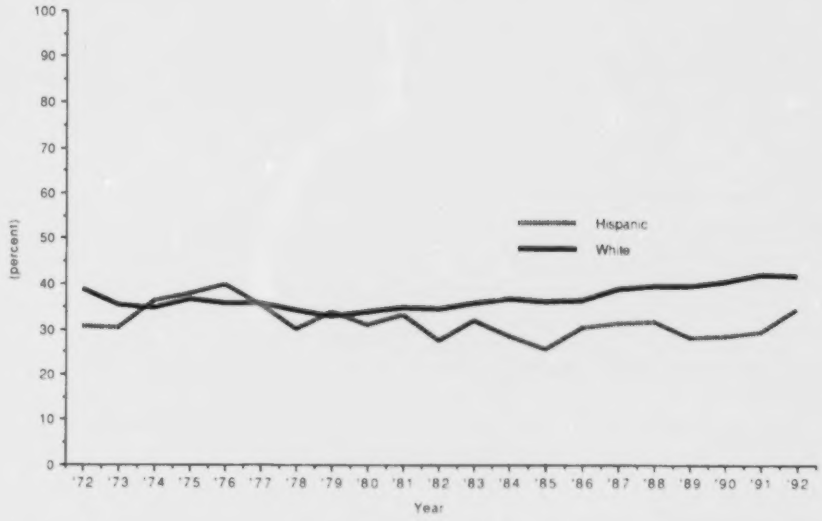
trails whites' and African Americans' by nearly 20 percentage points.

But the data do reveal an upswing in college participation by Hispanics who graduate from high school. In 1992, 37.1 percent of all Hispanic 18- to 24-year-old high school graduates enrolled in college, an increase of nearly 3 percentage points from 1991 (Table 1). With this increase, Hispanics had a higher rate of college participation than African Americans for the second consecutive year; in fact, the 37.1 percent figure is more than 3 percentage points higher than the rate for African Americans. In addition, the 1992 rate for Hispanics was the highest it has been in 20 years. Since 1987, the number of Hispanics participating in college has increased by nearly 9 percentage points.

In contrast to the trends of past years, much of the progress was made by Hispanic men. Overall, Hispanic men demonstrated a gain in participation of 5 percentage points, to 34.3 percent in 1992 (Table 2). The third consecutive gain for Hispanic men, the figure is 3 percentage points above the 1987 rate. Because of this increase, the gap between the enrolled-in-college rates of Hispanic men and white men narrowed to about 7 percentage points (Figure 3).

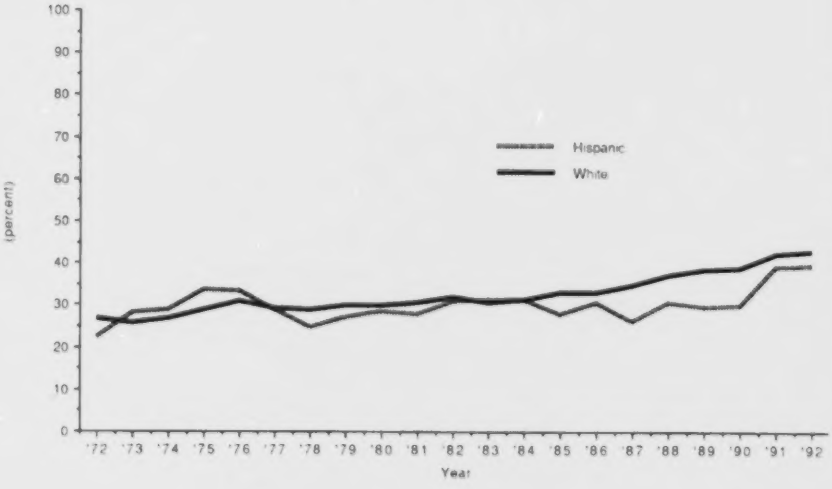
Hispanic women also appeared to build upon the gains examined in the *Eleventh Annual Status Report*. In 1992, 39.4 percent of Hispanic female high school graduates enrolled in college, up slightly from the 39.1 percent recorded in 1991. The 1991 rate itself was 10 percent higher than the previous year, providing a foundation for what could emerge as a long-term upward trend in college participation. The 1992 figure also reflects a large gain over the 1987 figure and results in a gap of only 4 percentage points between the rate for Hispanic women and that for white women (Figure 4).

**Figure 3**
**Enrolled-in-College Rates for 18- to 24-Year-Old White and Hispanic Male High School Graduates, 1972 to 1992**




**Source:** U.S. Department of Commerce, Bureau of the Census, *Current Population Reports, School Enrollment Social and Economic Characteristics of Students: October 1993*, Series P-20, No. 474.

**Figure 4**
**Enrolled-in-College Rates for 18- to 24-Year-Old White and Hispanic Female High School Graduates, 1972 to 1992**




**Source:** U.S. Department of Commerce, Bureau of the Census, *Current Population Reports, School Enrollment Social and Economic Characteristics of Students: October 1993*, Series P-20, No. 474.

# College Enrollment Trends

While college participation rates indicate mixed results for minority students, the actual enrollments of minorities in higher education have grown steadily over the past ten years. Enrollments among students of color increased by 53.6 percent between 1982 and 1992, with about half of the growth occurring in the past five years. This pattern has continued into the 1990s, with a growth of 7.1 percent between 1991 and 1992 and a growth of 16 percent since 1990 (Table 3).

Among all students, college enrollment increased by a mere 1 percent between 1991 and 1992. The primary reason for this small change was a 1 percent decrease in the number of white students enrolled during the year. For all students, enrollment increased by 1.2 percent at two-year institutions while enrollments at four-year institutions remained virtually unchanged. Again, declining white enrollment at both types of institutions contributed to the small growth.

All four ethnic minority groups and foreign students contributed to the latest enrollment increase and to the gains achieved by students of color over the past five years. From 1991 to 1992, Hispanics demonstrated the greatest progress, with a 10 percent gain, followed closely by Asian Americans, with a 9.4 percent gain. Men of color also showed an increase of 6.6 percent for the year, which was slightly below the 7.5 percent increase registered by women of color (Table 4). In keeping with past years, most of this growth in enrollments occurred at two-year rather than four-year institutions. Overall, students of color showed an 8.6 percent gain at two-year institutions, compared to a 5.8 percent gain at four-year colleges and universities (Table 3).

As mentioned above, Hispanics had the largest increase in enrollment of any of the four ethnic minority groups. Overall, Hispanic enrollment grew by 40.3 percent from 1988 to 1992, followed closely by a 40.2 percent gain by Asian Americans. African Americans showed the smallest gain of the four groups, with a 23.2 percent increase during this period. Again, the greatest increase in enrollments by all students of color occurred at two-year colleges. From 1988 to 1992, students of color posted a 35.5 percent increase at two-year institutions, compared to a 28.7 percent increase at four-year institutions.

Among the entire student population, women registered a small gain (1.4 percent) in total enrollment at both two- and four-year institutions between 1991 and 1992, while the rate for men remained virtually unchanged (Table 4). In contrast to data from the recent past, total graduate enrollment showed larger gains by students of color than undergraduate enrollment, although growth at both levels amounted to less than 2 percent (Table 5).

## African Americans

African Americans' total higher education enrollments increased by 4.3 percent from 1991 to 1992, continuing the trend of annual increases that began in the late 1980s (Table 3). Both men and women contributed to this increase, with men's enrollments increasing by 3.9 percent and women's increasing by 4.6 percent (Table 4). In fall 1992, 537,000 African American men enrolled in higher education, surpassing their previous high of 517,000 in fall 1991. Since 1988, enrollments of African American men have increased by 21.2 percent; enrollments of their female counterparts increased by 24.5 percent. The upward trend of African American male enrollments since 1988 has dramatically reversed the trend of lower enrollments that prevailed in the early to mid-1980s.

Between 1991 and 1992, African Americans' enrollments increased more at four-year than at two-year institutions, although the difference was slight (4.4 percent and 4.2 percent, respectively) (Table 3). Nevertheless, since 1988, African Americans have posted the largest enrollment growth at lower-cost two-year institutions. From 1988 to 1992, African American enrollments increased by 27.3 percent at two-year colleges, compared to 20.6 percent at four-year institutions.

Given this greater growth of minority enrollments at two-year colleges, it is not surprising that since 1988,

African Americans have registered larger gains at public than at independent institutions. Even from 1991 to 1992, when African Americans' enrollments increased more at four-year institutions, African Americans recorded a greater increase at public, not independent, colleges and universities (Table 4).

Despite continued underrepresentation in many fields, African American enrollments increased by 4 to 6 percent at undergraduate, graduate, and professional schools from 1991 to 1992 (Table 5). The largest increase, 5.8 percent, was at the professional level and was followed closely by a 5.6 percent increase at the graduate level. Surprisingly, undergraduate enrollment was the lowest of the three, posting a gain of only 4.2 percent. However, despite such gains, the rate of growth of African American enrollments trailed those of Asian Americans and Hispanics in all three categories.

Since 1988, African American enrollments at the undergraduate, graduate, and professional levels increased by similar amounts; increases ranged from 23.2 percent to 28.6 percent in all three categories, yet they continued to trail both Asian American and Hispanic enrollments in each category.

African Americans also posted an enrollment gain of 5.2 percent at historically black colleges and universities (HBCUs) from 1991 to 1992 (Table 6). (This data should be viewed with caution because the 1991 figure is based on data from 102 HBCUs, while the 1992 figure is based on data from 107 HBCUs.[6]) Nonetheless, this 5.2 percent increase was greater than the 4.2 percent increase recorded for African Americans at non-HBCUs during the same year.

Despite the greater enrollment growth at HBCUs in 1992, aggregate data since 1988 indicate that enrollments of African Americans have increased faster at non-HBCU institutions than at HBCUs. Overall, HBCUs enrolled 16.1 percent of all African American college students in 1992, a figure virtually unchanged from 1991.[7] From 1988 to 1992, however, enrollments of African Americans at non-HBCUs increased by 24.6 percent, compared to 16.6 percent for African Americans at HBCUs. This pattern indicates a slowing of the trend of the mid- to late 1980s, when African Americans recorded more than twice as much growth at HBCUs than at other colleges.[8]

Both men and women recorded small to moderate enrollment increases at HBCUs from 1991 to 1992, and much of this growth occurred at independent institutions. For men, a 6 percent overall gain included a 5.4 percent increase at public HBCUs and a 7.3 percent increase at independent HBCUs (Table 7). In comparison, women's enrollments at HBCUs increased by 4.6 percent. At independent HBCUs, their enrollments increased by 8.6 percent, compared to a 3 percent increase at public HBCUs.

## Hispanics

As noted above, Hispanics' enrollment gains have been mixed, despite their steady population growth. Hispanics' high school graduation rates remain low, although those who finish high school are beginning to enroll in college in greater numbers. Since 1988, Hispanics have posted a 40.6 percent increase in enrollments in American higher education. From 1991 to 1992, Hispanics continued this trend with a 10 percent increase in total enrollment for the year (Table 3). (This figure follows a 10 percent increase from 1990 to 1991.) Most of this progress has been at the undergraduate level. Increases in Hispanic enrollments at graduate and professional schools generally have trailed Hispanic enrollment increases in undergraduate education.

Overall, Hispanic men and women have made substantial progress, with men showing an increase of 9.2 percent for 1991–1992 and an increase of 37.7 percent since 1988 (Table 4). Hispanic women have surpassed these figures, with an increase of 10.7 percent for 1991–1992 and a total gain of 42.4 percent since 1988.

Despite this progress in total enrollment, most of the increase has been at two-year rather than four-year institutions. From 1991 to 1992, Hispanic enrollments increased by 12.6 percent at two-year institutions, compared to 7 percent at four-year institutions (Table 3). Over the past five years, Hispanic enrollments at two-year colleges have increased by 42 percent and at four-year institutions by 38 percent. Aggregate enrollment figures indicate that 57 percent of Hispanics pursuing postsecondary education in 1992—the largest share of the four ethnic groups--were enrolled at two-year institutions. Approximately 54 percent of American Indians in higher education attended two-year institutions in 1992, while the rates for whites, African Americans, and Asian Americans were below 50 percent.

In keeping with this trend, most Hispanic students attended public colleges and universities in 1992 (Table 4). Hispanic enrollment at independent colleges has increased by more than 40 percent since 1988, but independent institutions still account for only a small portion of total Hispanic enrollment. Overall, 86 percent of all Hispanics enrolled in higher education during 1992 attended public institutions. Corresponding rates were 78 percent for whites, 79 percent for African Americans, 81 percent for Asian Americans, and 86 percent for American Indians.

Hispanics also showed steady growth at the undergraduate, graduate, and professional levels from 1991 to 1992. Undergraduate enrollments posted the largest increase (10.3 percent), followed by 9 percent for professional school enrollment and 7.8 percent for graduate enrollment (Table 5). Since 1988, Hispanics have experienced growth of about 40 percent in both undergraduate and graduate education enrollments and 33 percent in professional school enrollments. Nonetheless, Hispanics continue to be severely underrepresented in

*Photo credit: Linda Anderson, College of Notre Dame of Maryland*

all sectors, particularly graduate and professional education.

## American Indians

American Indians and Alaskan Natives recorded small increases in higher education enrollments from 1991 to 1992, and they continue to represent less than 1 percent of all students at colleges and universities (Table 3). A 4.4 percent increase raised total American Indian enrollment to 119,000. Nonetheless, this one-year gain was less than the 10.7 percent increase posted from 1990 to 1991. Over the past five years, American Indian enrollment in higher education has increased by 27.9 percent.

Breaking with recent trends, most of the gains recorded from 1991 to 1992 were at four-year rather than two-year institutions. American Indians posted a gain of 7.8 percent at four-year institutions and only 1.6 percent at two-year institutions. Thus, these figures are more consistent with trends established during the 1980s, when American Indians' greatest enrollment gains were at baccalaureate institutions. From 1982 to 1992, American Indian enrollments increased by 41 percent at four-year institutions and 30.6 percent at two-year institutions.[9] Over the past five years, however, this trend has evened out as American Indian enrollments have increased by 30.9 percent at four-year institutions and 28 percent at two-year institutions.

From 1991 to 1992, American Indian enrollments increased by nearly 4 percent at the undergraduate level but remained unchanged at the graduate and professional levels. Since 1988, American Indians showed a 27.9 percent increase at the undergraduate level and a 16.6 percent increase at the graduate level (Table 5). Enrollments in professional schools remained unchanged during this four-year period, and American Indians continued to represent only a tiny fraction of the total student enrollment at these institutions.

Elsewhere, NCES data show similar enrollment gains for American Indian men and women from 1991 to 1992. Men's enrollments increased by 4.2 percent since 1991 and 28.2 percent since 1988 (Table 4). American Indian women's enrollments increased at similar rates: 4.5 percent since 1991 and 30 percent since 1988. The statistics also indicate a 14.3 percent increase in American Indian enrollments at independent institutions—an increase that far exceeds the 3 percent enrollment increase at public colleges and universities. Four-year aggregate data indicate an increase of 45.4 percent at independent institutions and 39.4 percent at public institutions. Nonetheless, public colleges continue to enroll the majority of

*Photo credit: St. Mary's University*

American Indian students, with independent institutions enrolling only 13.4 percent of American Indian postsecondary students.

## Asian Americans

Asian American students nearly doubled their enrollments in American higher education from 1982 to 1992, and figures for the early 1990s suggest that this trend is continuing. From 1991 to 1992, Asian American enrollments increased by 9.4 percent, a rate greater than that of African Americans and American Indians but below that of Hispanics (Table 3). From 1988 to 1992, Asian American enrollment increased by 40.2 percent, a figure slightly below Hispanics' enrollment increase of 40.3 percent—the highest increase of all four ethnic minority groups.

Like most other ethnic minorities, Asian Americans recorded larger enrollment increases at two-year than at four-year institutions from 1991 to 1992. Overall, Asian American enrollment increased by 12.9 percent at two-year colleges, compared with 7.1 percent at four-year institutions. These figures represent a break from the trend of the 1980s, when Asian Americans students posted much larger enrollment increases at four-year institutions. For example, Asian Americans more than doubled their enrollments at four-year institutions from 1980 to 1990, compared to smaller increases at two-year institutions.

Consistent with this trend toward greater enrollment increases at two-year institutions, Asian American student enrollments increased more at public than at independent institutions during 1991–1992. Overall, Asian American enrollments increased by 9.7 percent at public institutions and 8.3 percent at independent institutions (Table 4). From 1988 to 1992, however, Asian Americans' enrollment increases were slightly greater: 43.9 percent at independent institutions and 39.4 percent at public institutions.

Asian American women outpaced their male counterparts from 1991 to 1992, although both registered substantial one-year gains. Asian American women's enrollments increased by 10.6 percent, compared to 8 percent for Asian men. Since 1988, Asian American women's enrollments increased by 45.5 percent, compared to 35.5 percent for Asian men. Overall, Asian American enrollments increased more at the undergraduate level than at the graduate and professional levels. Asian Americans' undergraduate education enrollments increased by 9.6 percent from 1991 to 1992, compared to 6.9 percent at the graduate level and 9.5 percent at the professional level (Table 5). Since 1988, however, Asian Americans' professional school enrollment increases have outpaced increases at other levels: 64 percent at the first professional level, compared to 40.2 percent at the undergraduate level and 34.7 percent at the graduate level.

# Degrees Conferred

As the *Eleventh Annual Status Report* documented, all four ethnic minority groups posted important gains in terms of the number of degrees awarded during the late 1980s, and this trend continued into 1990. This year's report examines how students of color progressed in 1991 according to new data made available by NCES and other sources. Data for associate, bachelor's, master's, and first professional degrees are derived from NCES; data pertaining to doctoral degrees are derived from the National Research Council.

Overall, students of color registered small increases at almost all degree levels in 1991, including double-digit gains in some categories. At the associate degree level, students of color showed a 6.4 percent increase, including a 2.3 percent gain by men and a 9 percent gain by women (Table 8). In comparison, whites achieved only a 1.8 percent overall gain at the associate degree level, including a 2.8 percent increase by women (the rate for men remained largely unchanged). However, the overall proportion of associate degrees awarded to students of color changed little (17 percent of all degrees conferred). This figure remained constant even though enrollment by students of color continues to increase at two-year institutions (by 8.6 percent from 1991 to 1992) (Table 3). Total enrollment figures for white students at two-year institutions has decreased.

Students of color earned slightly more bachelor's degrees, with an increase of 7.7 percent from 1990 to 1991 (Table 9). The number of bachelor's degrees awarded to minority women increased by 9.3 percent, while the number earned by men increased by 5.5 percent. The percentage increase in the number of degrees awarded to minorities was three times that for white students. As a result, students of color registered a slight increase in the proportion of total bachelor's degrees awarded to them—from 13.1 percent to 13.7 percent. This finding is consistent with the higher enrollments of students of color at baccalaureate institutions. (Overall, enrollment of students of color increased by 55 percent at four-year institutions from 1982 to 1992 [Table 3].)

Minority women posted the largest increases at the master's level: 6.1 percent from 1990 to 1991 (Table 10). Minority men registered a 3.6 percent increase during the same period, giving students of color an overall gain of 5 percent for the year. This rate compared favorably with the 1.4 percent increase registered by white students. The number of white women earning degrees increased by 3.8 percent from 1990 to 1991, but white men suffered a 1.5 percent decline for the year. As a result of these changes, the proportion of minorities earning master's degrees increased slightly, from 10.9 percent in 1990 to 11.2 percent in 1991.

Students of color posted a 7 percent gain with regard to the number of first professional degrees conferred, while the number of white students earning first professional degrees remained virtually unchanged (Table 11). For minority students, this increase consisted of a 9 percent gain by women and a 5.4 percent gain by men. In contrast, the number of white women earning first professional degrees increased by 2.6 percent and the number of white men decreased by 1.3 percent. Because of these changes, the proportion of minority students earning first professional degrees increased from 13.4 percent in 1990 to 14.1 percent in 1991.

## African Americans

Over the past decade, most of the progress among African Americans in terms of the number of degrees conferred has been the result of gains made by women. At the bachelor's level, for example, an overall gain of 7.7 percent by African Americans from 1981 to 1991 was due primarily to a 13.4 percent increase by women; African American men showed no increases at the bachelor's level during this period. The trend also is evident at the first professional level, at which African American women have realized gains of 64.2 percent since 1981, whereas the number of degrees awarded to African American men has declined by 5.6 percent.

Current data indicate that in general, African Americans experienced their largest gain at the bachelor's degree level, with associate degrees close behind. The number of bachelor's degrees awarded to African

Americans increased by 7 percent, including an 8.5 percent gain by women and a 4.6 percent gain by men (Table 9). Overall, African Americans earned about 6 percent of all bachelor's degrees awarded in 1991, up slightly from 5.8 percent in 1990.

At the associate degree level, African Americans registered a 6.6 percent gain, with women again taking the lead with an increase of 7.9 percent (Table 8). African American men posted an increase of 4.2 percent. As a result, African Americans in 1991 earned 8.2 percent of all associate degrees, up from 7.8 percent in 1990. (Note that African Americans earned a larger portion of associate degrees—8.6 percent—in 1981.)

African Americans earned more master's degrees in 1991 than in 1990. A 4.5 percent gain for 1991–1992 included increases of 5.3 percent for women and 3 percent for men (Table 10). Whites posted a 1.4 percent increase in the number of master's degrees earned during this period. Despite these increases, the overall proportion of master's degrees awarded to African Americans remained virtually unchanged (less than 5 percent).

The number of first professional degrees awarded to African Americans increased by 4.8 percent, second only to increases posted by Asian Americans (Table 11). However, the gains were made almost exclusively by African American women, who posted a 9.5 percent increase for the year. (The number of African American men earning first professional degrees did not change from 1990 to 1991.) This mixed record left African Americans earning about 5 percent of all first professional degrees in 1991, a slight increase from the previous year.

African Americans also had a mixed record with regard to the number of degrees awarded by historically black colleges and universities (Table 12). Between 1990 and 1991, the number of associate degrees awarded to African Americans decreased by 7 percent; as a result, HBCUs awarded only 3.8 percent of all associate degrees earned by African Americans. The number of master's degrees awarded to African Americans at HBCUs dropped by 2.4 percent, while the number of bachelor's degrees awarded to African Americans at HBCUs increased by 4.5 percent.

At HBCUs, the sharpest drop was in the number of first professional degrees awarded. Overall, the number of African Americans earning first professional degrees at HBCUs decreased dramatically— by 42.5 percent from 1990 to 1991. As a result, HBCUs went from awarding 16.3 percent of all first professional degrees earned by African Americans in 1990 to only 8.9 percent in 1991. This decline suggests that in 1991, African Americans earned less than half the number of first professional degrees they had earned at HBCUs in the mid-1980s.

*Photo credit: Dean Slagel, California State University*

## Hispanics

Hispanics posted small to moderate increases in terms of the number of degrees conferred at all levels of higher education from 1990 to 1991. The largest increase was in the number of bachelor's degrees awarded: Hispanics earned more than 11.5 percent more bachelor's degrees during the year, surpassing the gains made by all other ethnic minority groups. This included a 14.2 percent increase in the number of degrees awarded to women and an 8.1 percent increase in the number awarded to men. Because of these increases, Hispanics also realized a small gain in the total proportion of bachelor's degrees awarded for the year. Hispanics earned 3.4 percent of all bachelor's degrees in 1991, up from 3.1 percent in 1990.

The 9.2 percent increase in the number of associate degrees awarded to Hispanics also was the largest increase among all four ethnic minority groups. Hispanic women again led the way, with a 13.7 percent increase in the number of associate degrees earned; men posted a 3.5 percent increase. As a result, Hispanics posted a slight increase in terms of the total proportion of all associate degrees awarded, earning 5.2 percent in 1991.

From 1990 to 1991, Hispanics posted a 5.4 percent increase in the number of master's degrees earned. This increase was largely the result of Hispanic women, who posted an 8 percent gain; men posted a 2.2 percent gain. Nevertheless, because of

similar increases made by other ethnic minority groups at the master's level, Hispanics continued to earn less than 3 percent of all master's degrees awarded nationwide.

The 4.1 percent increase in the number of first professional degrees awarded to Hispanics was the smallest increase in any of the four degree categories. This figure trailed the one-year gains by African Americans and Asian Americans. Nonetheless, Hispanic women posted a 4.5 percent gain for the year, while Hispanic men posted a 3.9 percent increase. Overall, however, Hispanics continued to earn only about 3.5 percent of all first professional degrees awarded nationwide in 1991.

Degree data from Hispanic-serving institutions, or those with at least 25 percent Hispanic enrollment, indicate that Hispanic students rely on these institutions particularly for associate degrees (Table 13). In 1991, Hispanics earned 39 percent of their associate degrees at Hispanic-serving institutions, while they earned only 18.7 percent of bachelor's degrees, 13.3 percent of master's degrees, and 2 percent of doctoral degrees at these colleges. Overall, Hispanic-serving institutions accounted for 5.1 percent of all associate degrees awarded nationwide and approximately 1.5 percent of all bachelor's and master's degrees awarded for the year.

## Asian Americans

The tremendous increases in the number of degrees awarded to Asian Americans during the 1980s slowed somewhat in the early 1990s. Asian Americans continued to post increases in all four degree categories, but the increases are more moderate than a decade ago. From 1990 to 1991, the largest increases were in the number of first professional degrees awarded: Asian Americans posted an 11.7 percent gain for the year, the largest of any ethnic minority group. Men and women contributed almost equally to this increase, with women posting a gain of 12.7 percent and men, 11 percent. As a result, Asian Americans received 5.3 percent of all first professional degrees awarded in 1991, up from 4.8 percent the previous year.

Asian American students also posted a 6.1 percent increase in the number of bachelor's degrees earned during 1990–1991, the second largest increase for Asian Americans. But this figure trailed the increases registered by both Hispanics and African Americans. The 6.1 percent increase was the result of a 7.2 percent gain by Asian American women and a 4.9 percent gain by Asian American men. Asian Americans earned 3.8 percent of all bachelor's degrees in 1991, up from 2.0 percent in 1981.

The 5.7 percent increase in the number of master's degrees earned by Asian American students was the largest increase among all four ethnic minority groups, though the numbers are far below those of the 1980s. Asian American men contributed to this one-year increase with a gain of 5.3 percent, while Asian American women fared slightly better, posting an increase of 6.2 percent for the year. Overall, Asian Americans continued to earn only about 3.4 percent of all master's degrees.

Asian Americans registered a 1.9 percent gain in the number of associate degrees earned, the smallest increase among the four major ethnic minority groups. Asian American women posted an increase of 4.1 percent, while Asian American men posted a decrease of less than 1 percent. Thus, Asian Americans earned approximately 3 percent of all associate degrees awarded during 1991.

## American Indians

Despite small gains made in 1991, American Indians continue to represent only a tiny share of the total number of students earning degrees at all levels of higher education. Overall, American Indians earn less than 1 percent of all the degrees awarded in all four categories.

On a percentage basis, American Indians posted their greatest gain at the associate level from 1990 to 1991. Their 4.1 percent gain actually surpassed the increase posted by Asian Americans, and it occurred despite a 4.2 percent loss for the year by American Indian men. A 9.8 percent increase by American Indian women compensated for the loss, producing a net gain for the year.

American Indians earned 2.7 percent more bachelor's degrees, including 3.2 percent more for women and 2.1 percent more for men. At the master's level, American Indians registered a 3.4 percent gain, again only because of a moderate increase by women. American Indian men posted a small net loss for the year, though women posted a 6.1 percent increase.

At the first professional level, a 6.7 percent increase by men offset a 4.1 percent decline by women to produce a small net gain for the year. However, American Indians account for only a small number of first professional students. During 1991, only 261 American Indians received first professional degrees, an increase of only four over the previous year.

# Degrees Conferred By Field

Previous *Status Reports* documented in some detail the return of some students of color to education and the social sciences—two fields that had experienced steady declines from the late 1970s to the mid-1980s in terms of the numbers of degrees awarded to minorities. This year, NCES data revealed substantial growth in these fields—particularly in education at the bachelor's level and in social sciences at the master's level.

Students of color posted consistent increases at the bachelor's degree level in all six major fields of study, including engineering and the life sciences. Data at the master's level also reveal gains in nearly all fields, in some cases reversing steady decreases dating to the early and mid-1980s. This report is based on current NCES degree information (updated through 1991).

*Photo credit: Mark Rowlands, University of Kansas*

At the bachelor's degree level, students of color posted gains in all six major degree fields from 1990 to 1991, led by a 12 percent gain in education (Table 14). This renewed interest in education is a recent trend; even the gains recorded in 1991 did not raise minority degree attainment to 1981 levels. Women accounted for most of the increase in 1991, earning 14.3 percent more degrees, compared to 5.4 percent more earned by men.

Degrees in the social sciences ranked second, with the number of degrees awarded to minorities increasing by 10.9 percent, surpassing business, health, and other fields of study. This increase continued a trend begun five years ago. From 1990 to 1991, the number of degrees in the social sciences awarded to women of color increased by 13.5 percent; for men, the number increased by 8 percent.

The increase in the number of degrees in life sciences awarded to minorities ranked third at the bachelor's level, with a 10.3 percent increase from 1990 to 1991. Women's gains again outpaced men's, with women posting an 11 percent gain and men, 9.3 percent. Students of color earned more than 7.1 percent more bachelor's degrees in business, with both men and women contributing to the increase. The number of bachelor's degrees in health professions and engineering earned by students of color increased more moderately—by 4.5 percent and 4.1 percent, respectively. Minority men's gains outpaced women's in the health professions, while women's 8.4 percent increase in the number of degrees earned in engineering was double men's rate of increase in the field.

At the master's level, the largest increases in terms of the number of degrees conferred were in the social

sciences for the second consecutive year. The 12.8 percent overall gain by students of color resulted from women's 25 percent gain and men's more meager 2.3 percent gain.

Master's degrees in engineering ranked second, with an 8.8 percent increase in the number of degrees conferred. Men accounted for much of the increase, though the number of minority women earning master's degrees in engineering has more than tripled over the past ten years. The number of master's degrees awarded in education and business increased by 5.3 percent and 5.2 percent, respectively, with men posting the larger gain in education and women posting the larger gain in business. The total number of minority women earning master's degrees in business has more than doubled since 1981.

The number of master's degrees awarded to students of color in the health professions increased by 4.8 percent, with women posting the larger gain. A 1.1 percent increase in the number of master's degrees awarded in public affairs was the result of an increased number being earned by women (the rate for men was virtually unchanged).

## African Americans

Consistent with the data mentioned earlier, African Americans showed the greatest increases in the numbers of bachelor's degrees earned in the field of education and the social sciences. In education, women accounted for almost the entire increase for the year: women posted a gain of 13.3 percent, while men showed virtually no increase for the year. In social science, a 12.3 percent overall gain included a 13.1 percent increase by women and an 11.4 percent increase by men (Table 14).

Engineering and the life sciences also posted gains at the bachelor's degree level: 7.2 percent and 6.8 percent, respectively. Again, African American women's gains accounted for most of the increase: 12.8 percent in engineering degrees and 7 percent in the life sciences. African American men posted an increase of 6.4 percent in life sciences and 5.1 percent in engineering.

Women also accounted for much of the increase in the number of bachelor's degrees awarded in business. Overall, the number of degrees in business awarded to African American women increased by 8.1 percent, compared to 2.8 percent for African American men. But men accounted for most of the increase in the number of health professions degrees awarded during 1991, posting a 5.7 percent gain.

At the master's level, the greatest increase in the number of degrees awarded was in the social sciences, with an increase of 23.7 percent (Table 15). This increase was the largest in social sciences among the four ethnic minority groups, and women were responsible for most of the progress. In 1991, African American women earned 41.8 percent more master's degrees in social science, and men earned 7.1 percent more. Despite these gains, data do not reveal a net gain in the number of social science master's degrees awarded to African Americans between 1981 and 1991. Nevertheless, the large increase for 1991 helped offset much of the decline that occurred during the 1980s.

The health professions placed second, with a 12.3 percent increase in the number of master's degrees earned by African Americans in 1990–1991. Men accounted for much of the increase, with a 17.9 percent gain for the year; African American women gained 11 percent for the year.

Engineering placed a distant third for African Americans at the master's level, with a gain of 6.9 percent. The actual numerical increase in the number of degrees conferred in the field was small. The number of degrees conferred in business increased by 5.7 percent for the year, including an 11.1 percent gain by women and a 1.1 percent gain by men.

Despite their significant increases in degree attainment at the bachelor's level, African Americans registered only a 3.8 percent increase in the number of master's degrees earned in education. Men led the way with an 8.3 percent increase, compared to a 2.5 percent increase by African American women.

Of the six fields described here, public affairs was the only field in which the numbers of degrees awarded to African Americans declined; African Americans earned 2.7 percent fewer degrees in 1991 than in 1990.

## Hispanics

Hispanics made considerable progress in 1991 in terms of the number of degrees conferred—particularly at the bachelor's level. Hispanics recorded a 22.4 percent increase in the number of bachelor's degrees earned in education, the highest of the four ethnic minority groups (Table 14). Both men and women contributed to this increase, with Hispanic women posting a 24.2 percent gain and Hispanic men, a 16.1 percent gain.

Hispanics also earned 16.5 percent more bachelor's degrees in the life sciences, outgaining both Asian Americans and African Americans for the year. The life science statistics included a 22.6 percent gain by women and a 10.9 percent gain by men. The number of bachelor's degrees earned in the social sciences also increased by double digits (14.1 percent). Women outgained men in this category, though both posted increases of more than 10 percent.

The number of degrees in business awarded to Hispanics increased by 8.7 percent, but this figure was the highest among the four ethnic minorities. Moderate gains by men and women contributed to this increase. Hispanics also earned 6.8 percent more bachelor's degrees in the health professions, with a 26.3 percent gain for men accounting for most of the increase. The 1991 figures showed only a 2 percent increase in the number of degrees awarded to Hispanics

percent), largely because of Asian American men's achievements. At the same time, however, a 9.2 percent increase in the number of master's degrees earned in the social sciences was due primarily to a 25.2 percent gain by Asian American women. The number of graduate degrees conferred to Asian American men in social sciences was largely unchanged for the year.

Both men and women made gains in terms of the number of business degrees earned at the master's level, contributing to a 5.9 percent increase for the year. Men posted a 31.6 percent increase in public affairs master's degrees, offsetting a loss of 9.3 percent by women. A decline of 9.5 percent by men contributed to an overall 1.7 percent decline in the number of health professions master's degrees awarded to Asian Americans during 1991.

## American Indians

Degree data on American Indians are severely limited because American Indians represent such a small proportion of U.S. students who earn degrees at the baccalaureate and master's levels nationwide. Nonetheless, the data do indicate some small gains in 1991.

At the bachelor's level, the number of degrees earned by American Indians in the life sciences increased by 33.3 percent, including a 59.3 percent gain by women and a 16.2 percent gain by men. (Note that the actual numbers are quite small: only 86 American Indian men and 94 American Indian women earned life science degrees during 1991.)

American Indians earned 9.3 percent more undergraduate engineering degrees, led mostly by women, and 7.5 more undergraduate health professions degrees (primarily the result of a large increase in the number of degrees awarded to men). American Indians also posted a 3.9 percent gain in bachelor's degrees in education, but they made no progress in the social sciences at the bachelor's level in 1991.

In terms of earned master's degrees, American Indians posted double-digit gains in the health professions and public affairs, but again, the numbers are so small that it is difficult to track any long-term trends. The largest number of master's degrees was awarded in education, though the 1991 statistics reflect little change from 1990. Business was the second-most popular choice for American Indians at the master's level, and gains by women accounted for an 8 percent increase in this category.

## Doctoral Degrees

National Research Council information on U.S. citizens indicates that American Indians and Asian Americans experienced the largest percentage growth in terms of doctorates awarded from 1991 to 1992, though the total number of American Indians earning doctorates remained low (Table 16). The total number of doctorates awarded to African Americans decreased by 5 percent during the year. African American men and women both contributed to this decline, with men showing the largest drop (7 percent). During the past ten years, the total number of doctorates awarded to African American men has decreased by 20 percent.

The number of doctorates awarded to African Americans at historically black colleges and universities also dropped by 11 percent from 1990 to 1991, with the result that the number is now below that for 1989 (Table 12).

The data for Hispanics indicate a 3.4 percent increase in the number of doctorates earned from 1991 to 1992, although Hispanics continue to earn fewer than 1,000 doctorates per year (Table 16). The number of doctorates earned by Hispanic men increased by 8.6 percent for the year, while the number of doctorates awarded to Hispanic women decreased by 1.9 percent.

Asian Americans posted a 5.2 percent increase in the number of doctorates earned for the year, largely because of an 8.5 percent increase by Asian American men.

American Indians had the highest rate of growth—13.8 percent—which included a 19.6 percent gain by women and a 9.5 percent increase for men. Nonetheless, American Indians earned only 148 doctorates during 1992, up from 130 in 1991 and 96 in 1990.

The number of doctorates awarded to whites increased by 1.5 percent in 1992, largely because of gains made by women. Non-U.S. citizens earned 30.5 percent of all doctorates awarded during 1992. For the year, non-U.S. citizens showed an overall gain of 6.1 percent, with increases by both men and women. Data from the past ten years illustrate the dramatic growth in the number of doctorates awarded to non-U.S. citizens as compared to the number awarded to U.S. citizens. From 1982 to 1992, the number of doctorates awarded to non-U.S. citizens more than doubled, compared to a 5.6 percent increase by U.S. citizens of all ethnic groups. Among non-U.S. citizens, the number of degrees awarded to men doubled, and the number of degrees awarded to women nearly tripled. Female U.S. citizens earned 28.8 percent more doctorates over the course of the decade, but men earned 7.5 percent fewer doctorates during the same period.

## Doctorates by Field

Among U.S. citizens, the number of doctorate degrees earned increased at least slightly in all major fields of study from 1991 to 1992 (Table 17). Hispanics posted some of the largest gains, including 23.4 percent in engineering, 18.6 percent in life sciences, 14.1 percent in education, and 10 percent in physical science. But Hispanics also showed declines of 9.1 percent in the social sciences and 2.7 percent in the humanities. In some of these disciplines—particularly engineering and life sciences—Hispanics represent only a small number of those earning doctorates.

African Americans earned fewer doctorates in nearly all fields in 1991, including 27 percent fewer in engineering and 14.4 percent fewer in the physical sciences. Overall, African Americans received fewer than 50 degrees in both of these categories in 1992, though the figures for engineering do reflect gains since 1980. From 1991 to 1992, African Americans earned 13.7 percent more doctorates in education, their most populous field. Yet the number of education doctorates awarded to African Americans in 1992 still was down 22 percent from the level reported in 1980. African Americans earned 6.9 percent fewer doctorates in the social sciences.

Asian Americans showed solid gains in terms of earned doctorates, earning 23.9 percent more in physical sciences, 15 percent more in engineering, 13.4 percent more in social sciences, and 18.6 percent more in the humanities. Asian American doctoral students did not fare as well in education or the life sciences, both of which showed a net loss for the year.

American Indians made their largest gains in terms of earned doctorates in the humanities and engineering, though again, the small numbers reflect their underrepresentation in these fields. In the humanities, 19 American Indians received doctorates in 1992, up from ten in 1991. Eleven American Indians earned doctorates in engineering in 1992, up from six in 1991.

# State Trends in Bachelor's and Associate Degrees

During the past ten years, students of color substantially increased both their enrollments and the number of degrees they earned in higher education. However, this growth varied greatly for different ethnic groups. In addition, the uneven economy of the late 1980s and early 1990s left many unanswered questions at the state level, where budget shortfalls and education cutbacks resulted in new challenges that are affecting participation in higher education. This section focuses on how individual states fared with regard to minority degree completion during the 1980s and early 1990s by analyzing state data on associate and bachelor's degrees, two of the most important indicators of achievement at the postsecondary level.

Data for this section, including state totals as well as figures for all four major ethnic minority groups from 1981 to 1991, were provided by the National Center for Education Statistics.[10] The analysis focuses on states with a large number of students of color.[11]

## General Trends

From 1981 to 1991, nearly all states showed growth in the total number of bachelor's degrees awarded to students, and most also recorded increases in the number of associate degrees awarded (Table 18). Small states tended to have the largest percentage increases, though large-population states also experienced moderate growth. At the baccalaureate level,

*Photo credit: Eve Morra*

Texas, California, and Florida had increases ranging from 21.5 percent to 29.8 percent for the decade; New York posted a 10.6 percent increase. Northeast and midwest industrial states such as Illinois, Pennsylvania, and Michigan also posted increases of 13 to 14 percent.

At the associate level, 44 states reported increases in the number of degrees conferred. Among large population states, Texas and Florida reported gains of 22.1 percent and 13.9 percent, respectively. Northeast and midwest states also reported moderate increases, such as the 15.5 percent registered by Illinois and the 22.2 percent cited by Pennsylvania. But the six states that failed to report any increases included California, which reported a 4.3 percent decrease during the period. Three New England states, in addition to South Carolina and South Dakota, also reported decreases for the period. Sparsely populated states in the west reported the largest percentage increases at the associate degree level.

Nationwide, data indicate that some of these gains are traceable to the increasing number of Asian American and Hispanic students finishing college. Overall, the number of bachelor's degrees awarded nationwide increased by 15.7 percent from 1981 to 1991, while the number of degrees awarded to African Americans and whites increased by 7.7 percent and 12 percent, respectively. The number of degrees awarded to American Indians increased by 25.6 percent, but they still receive only 0.4 percent of all baccalaureate degrees (Table 9).

Similar trends were apparent in several large states: moderate gains were made in terms of the total number of degrees awarded, despite smaller increases by whites and African Americans. In California, for example, the total number of bachelor's degrees awarded increased by 22.8 percent from 1981 to 1991 (Table 18), yet the number of degrees awarded to both whites and African

Americans increased by only 2.6 percent, and the number of degrees awarded to American Indians decreased by 4.4 percent (Tables 19, 22, and 23). In New York, the total number of bachelor's degrees awarded increased by 10.6 percent during the decade, while the number of degrees awarded decreased by 3.5 percent for whites and by 1.1 percent for African Americans.

As a result of these changes, African American and white students represented a lower percentage of those earning associate and bachelor's degrees in many states. But in several southern states, particularly Alabama and Mississippi, the proportion of whites earning bachelor's degrees actually increased during the decade, while the number and proportion of degrees awarded to African Americans decreased. This is a disturbing trend, as both Alabama and Mississippi were cited in the Adams case and ordered to improve educational opportunities for students of color—particularly African Americans. Mississippi currently is the subject of litigation in the Ayers case, which pertains to equal access in higher education.[12]

## African Americans

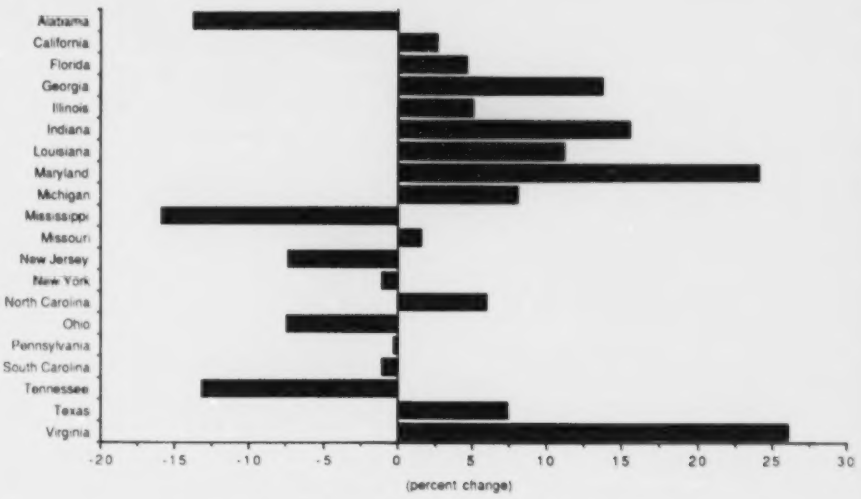
Analysis of baccalaureate degree awards in different states between 1981 and 1991 indicates varied results for African American students. While most states reported small to moderate increases in the number of degrees awarded to African Americans, approximately one-fourth reported losses (Table 19). In 30 states and the District of Columbia, African American students experienced gains in the number of bachelor's degrees earned during this period. However, because the total number of baccalaureates awarded in nearly all states increased at a more rapid rate than that of African Americans, African Americans actually experienced declines in their relative share of baccalaureate degrees in all but two states. Only Arizona and Connecticut reported gains in both the number and share of four-year degrees awarded to African Americans. (Note that neither of these two states has a large African American population.)

Of the states where the largest numbers of African Americans reside (including states in the south and large population states), Maryland and Virginia reported the largest increases in the number of four-year degrees awarded—24.1 percent and 26.1 percent, respectively (Table 19 and Figure 5 ). As a result, African Americans retained a relatively constant share of bachelor's degrees in these two states. In California, Georgia, Indiana, Louisiana, Michigan, North Carolina, and Texas, African Americans experienced more moderate gains, ranging from 2.6 percent in California to 15.5 percent in Indiana. In addition, their share of baccalaureate awards remained relatively constant in three of these seven states—Indiana, Louisiana, and Michigan—but decreased by 1 to 3 percentage points in the other four states.

As Figure 5 indicates, states with large African American populations that reported sizable numerical losses in terms of the number of baccalaureate degrees awarded included three southern states—Mississippi (15.9 percent), Alabama (13.8 percent), and Tennessee (13.2 percent). The share of bachelor's degrees held by African Americans in these states also decreased. From 1981 to 1991, their proportion of baccalaureate degrees declined from 17.4 percent to 13.6 percent in Alabama; from 10.5 percent to 8.7 percent in Tennessee; and from 24.7 percent to 20.5 percent in Mississippi. These reductions in degree attainment are particularly troubling given that these states were cited in the Adams case, which ordered them to improve educational opportunities for African Americans by addressing inequities in the public higher education systems.[13] (The decrease in the number of African American baccalaureates awarded in Mississippi is also germane to the Ayers case. These data clearly indicate that instead of making progress in terms of degree attainment, African Americans have actually lost ground in this state. Other large population states in which African Americans earned fewer baccalaureates included Ohio (7.5 percent) and New Jersey (7.4 percent).

At the associate level, results for African Americans were again mixed; African Americans experienced increases in 28 states, decreases in 20

**Figure 5**
**Change in Bachelor's Degrees Awarded to African Americans in the 20 States with the Largest African American Populations, 1981 to 1991**




**Source:** National Center for Education Statistics, "Degrees and Other Formal Awards Conferred" and IPEDS "Completion Survey"





BEST COPY AVAILABLE

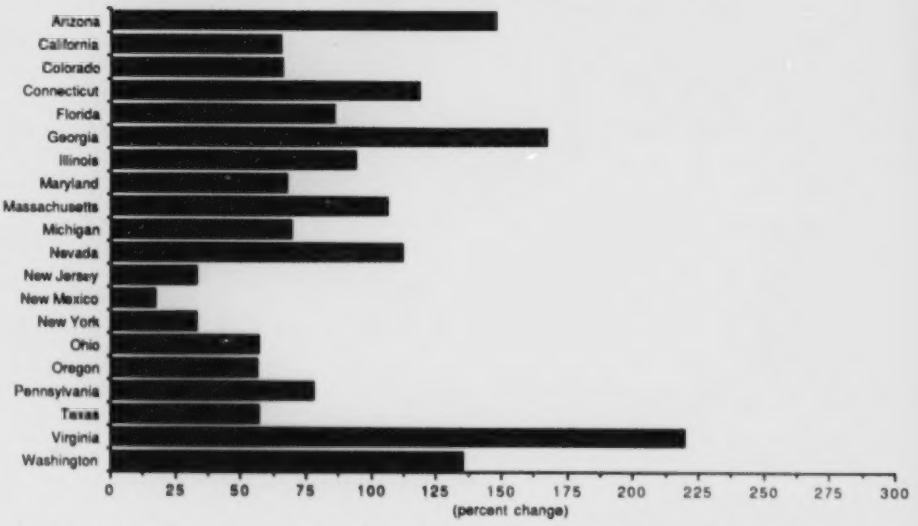
states, and held fairly steady in the remaining two states. Among the large African American population states posting increases were Georgia, which recorded an 87.1 percent increase; Virginia, which reported a 46.5 pecent increase; Louisiana, which reported a 23.9 percent increase; and Michigan, which reported a 19.3 percent increase. Other states in which African Americans earned an increased number of associate degrees were Illinois, Indiana, Ohio, and Texas.

Because of the size of California's community college system, the 31.1 percent reduction in the number of degrees awarded to African Americans severely reduced two-year degree attainment figures by this group in the far west region of the country (Table 19). Overall, between 1981 and 1991, the far west region awarded 23.9 percent fewer associate degrees to African American students. In the south, African Americans earned fewer associate degrees in South Carolina (18.9 percent), Maryland (13.9 percent), North Carolina (12.0 percent), and Florida (7.5 percent). (Note that Georgia, Louisiana, Texas, and Virginia were the only southern states with large African American populations that reported increases in the number of degrees awarded to this group at both the associate and bachelor's degree levels.)

## Hispanics

A state-by-state analysis of bachelor's degrees awarded from 1981 to 1991 indicates moderate to large gains by Hispanics in most states (Table 9). Only seven states failed to show any gains at all for Hispanics at the bachelor's level (Table 20). The number of bachelor's degrees awarded to Hispanics doubled in 15 states, seven of which have large Hispanic populations. Four states, including Virginia, which ranks among the top 20 states in terms of Hispanic population, increased the number of bachelor's degrees awarded to Hispanics threefold (Figure 6).

**Figure 6**
**Change in Number of Bachelor's Degrees Awarded to Hispanics in the 20 States with the Largest Hispanic Populations, 1981 to 1991**




**Source:** National Center for Education Statistics, *"Degrees and Other Formal Awards Conferred"* and IPEDS *"Completion Survey."*

More important, Hispanics in most states recorded degree gains at a faster rate than the general student population, enabling them to increase their share of baccalaureate degrees within states. Nationwide, Hispanics in 41 states and the District of Columbia posted gains both in the number and share of four-year degrees awarded (Table 20). The nine states that failed to report any increase by Hispanics were mostly small states lacking a large Hispanic population.

Among states with large Hispanic populations, those in the west reported some of the greatest gains (Figure 6). Hispanics in California earned 64.9 percent more bachelor's degrees, and their share of total degrees awarded increased by 2 percentage points during the decade. Arizona, Washington, and Nevada doubled the number of bachelor's degrees awarded to Hispanic students.

Florida, another large population state, reported an 85.4 percent increase in the number of bachelor's degrees awarded during this period. This increase enabled Hispanics to earn 9 percent of the degrees awarded in 1991, up from 6.3 percent in 1981. Texas and New York reported smaller gains—57.1 percent and 32.8 percent, respectively. Hispanics in both of these states—particularly Texas—also increased their share of bachelor's degrees during this period. Among other states that rank in the top 20 in terms of total Hispanic population, Georgia, Massachusetts, and Virginia more than doubled the number of bachelor's degrees awarded to Hispanics.

At the associate level, Hispanics showed smaller gains than at the baccalaureate level between 1981 and 1991. Overall, 35 states reported at least small increases in the number of degrees awarded, yet in only 25 did these gains surpass those of the overall student population. Ten states, including New Mexico, Illinois, Virginia, and Washington, four states that rank in the top 20 in terms of Hispanic population, doubled the number of degrees awarded to Hispanics. In New Mexico, Hispanics earned 25 percent of all associate degrees in 1991, up from 18.5 percent in 1981. In Illinois, Hispanics doubled both their total number of degrees earned and their share of all associate degrees awarded statewide.

Between 1981 and 1991, the states with the largest Hispanic populations generally reported more moderate gains in terms of the number of asso-





BEST COPY AVAILABLE

ciate degrees awarded. In California, Hispanics earned only 4.9 percent more associate degrees, though they did better than the state's general student population, which earned 4.3 percent fewer associate degrees overall. New York reported a 23.2 percent increase, enough to help Hispanics increase their proportion of all associate degrees awarded. Hispanics also posted gains of 43.7 percent in Florida and 43.2 percent in Texas; in both cases, they also increased their total share of associate degrees earned.

## Asian Americans

Nationwide, the number of bachelor's degrees awarded to Asian Americans more than doubled between 1981 and 1991 (Table 9). Most states reported large gains, including those with the largest Asian American populations (Table 21). Overall, the number of bachelor's degrees earned by Asian Americans doubled in 19 states and tripled in 17 states. Only four small states failed to report any increase in the number of bachelor's degrees awarded to Asian American students. In many states, these impressive numerical gains translated into proportional gains. Asian American students in 44 states and the District of Columbia earned a greater share of all bachelor's degrees awarded in 1991 than they did in 1981.

Of the 20 states with the largest Asian American populations, 15 more than doubled the number of bachelor's degrees awarded to Asian American students from 1981 to 1991 (Figure 7). Among these states was New York, where Asian Americans earned their second-highest number of bachelor's degrees in 1991. Illinois, Massachusetts, New Jersey, Pennsylvania, and Texas were among the other large Asian American population states that at least doubled the number of bachelor's degrees awarded to Asian American students.

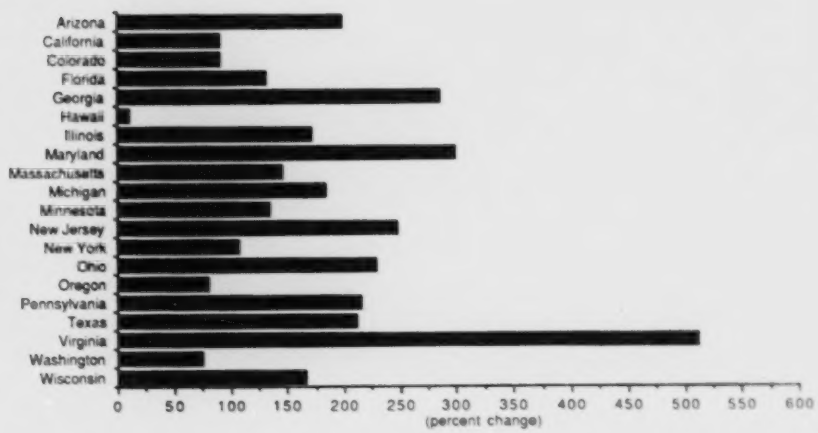
In western states, where Asian Americans and Pacific Islanders are most populous, impressive gains were also reported. In California, Asian Americans earned 90.7 percent more bachelor's degrees over the course of the decade. With this increase, Asian students earned 13.2 percent of all bachelor's degrees awarded in the state during 1991, up from 8.5 percent in 1981. Washington and Oregon, two other states with large Asian American populations, registered increases of 75.4 percent and 79.7 percent, respectively. Hawaii, the state with the largest percentage of Asian Americans and Pacific Islanders, reported one of the smallest gains in the nation (11.3 percent). As a result, Asian Americans and Pacific Islanders earned a smaller percentage of the bachelor's degrees in that state in 1991 than in 1981.

At the associate level, Asian Americans made steady gains, but at rates below those for bachelor's degrees (Table 21). Fourteen states doubled the number of degrees awarded to Asian students, but most were small states lacking a large Asian population. Only 24 states reported an increase in both the total number of associate degrees awarded and the proportion of associate degrees earned by Asian American students; 44 states cited such increases at the bachelor's level.

In terms of individual states, California reported a 62.6 percent increase in the number of associate degrees awarded since 1981. Hence, Asian Americans earned 11.2 percent of all associate degrees in the state in 1991, up from 6.6 percent in 1981. In New York, another large population state, Asian Americans more than doubled the number of associate degrees earned and realized a small proportional gain as well. Of the top 20 Asian American population states, Georgia reported a four-fold increase and Virginia a threefold increase in the number of associate degrees awarded during the decade.

Seventeen states and the District of Columbia reported a decrease in the total number of associate degrees earned by Asian Americans from 1981 to 1991. Most were small-population states, but the list included Hawaii, which reported a 9.8 percent decline. As a result, the proportion of associate degrees earned by Asian Americans and Pacific Islanders dropped from 68.6 percent in 1981 to 56.6 percent in 1991.

**Figure 7**
**Change in Number of Bachelor's Degrees Awarded to Asian Americans in the 20 States with the Largest Asian American Populations, 1981 to 1991**

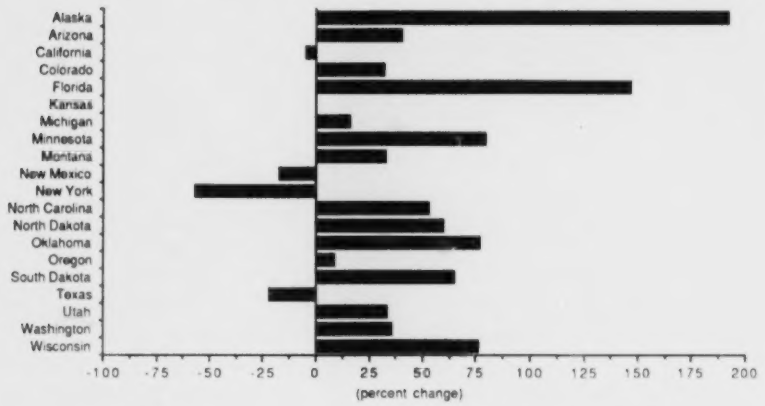



**Source:** National Center for Education Statistics, "Degrees and Other Formal Awards Conferred" and IPEDS "Completion Survey"

## American Indians

American Indians continued to represent less than 1 percent of all bache-

**Figure 8**
**Change in Number of Bachelor's Degrees Awarded to American Indians in the 20 States with the Largest American Indian Populations, 1981 to 1991**




**Source:** National Center for Education Statistics, *"Degrees and Other Formal Awards Conferred"* and IPEDS *"Completion Survey."*

lor's and associate degrees recipients in most states from 1981 to 1991 (Table 22). Analysis of the state-by-state figures suggests varied progress, with 24 states showing an increase in the number of bachelor's degrees earned and 21 states showing an increase in the number of associate degrees awarded since 1981.

This uneven record was evident at the bachelor's degree level even among states with the largest populations of American Indians (Figure 8). Alaska reported a dramatic increase, with the number of American Indians earning degrees nearly tripling since 1981. Florida joined Alaska as the only other state to double the number of bachelor's degrees awarded to American Indians. Oklahoma reported a 76.5 percent increase, which was greater than the gain by the state's overall student population. South Dakota reported an increase of 64.7 percent, enough to result in a solid proportional gain for American Indians. In Arizona, American Indians earned 40.3 percent more bachelor's degrees over the ten-year period, yet this gain did not keep pace with progress made by the state's overall student population.

Progress at the bachelor's level was tempered by declines in several key states, particularly in the southwest and west. California reported a 4.4 percent decrease, while Texas and New Mexico reported losses of 21.8 percent and 17.1 percent, respectively (Figure 8). Nationwide, only 19 states reported gains both in the number of bachelor's degrees conferred and in the proportion of American Indians earning those degrees.

At the associate degree level, the picture was similar: only 21 states reported increases during the decade (Table 21). Many of the increases were in west and north central states, where American Indians account for a slightly larger share of the total population. Oklahoma reported an increase of 82.5 percent, increasing American Indians' share of all degrees earned in the state. New Mexico and Arizona also reported associate degree gains of 41.4 percent and 26.7 percent, respectively. In Arizona, the increase was sufficient to help American Indians chart a proportional gain for the decade. American Indians in New Mexico lost ground in proportion to the overall student body.

Among north central states, Idaho, Nebraska, and North Dakota more than tripled the number of associate degrees awarded to American Indians. Ranking in the top 20 states in terms of American Indian population, Montana and Minnesota more than doubled the number of associate degrees awarded during the period.

Nonetheless, 24 states and the District of Columbia reported losses for American Indians at the associate degree level; three states reported no change. Noteworthy declines included a 51.9 percent decrease in New York and a 52.1 percent decrease in Texas. In both cases, the proportion of degrees awarded to American Indians diminished. American Indians also earned 8.4 percent fewer associate degrees in California, the state that granted the largest number of associate degrees to American Indians in both 1981 and 1991. In Alaska, an 11.8 percent decrease in the number of associate degrees awarded to American Indians translated into a 3 percent proportional loss for the decade.

# Special Focus: Improving the Retention of Students of Color in Higher Education

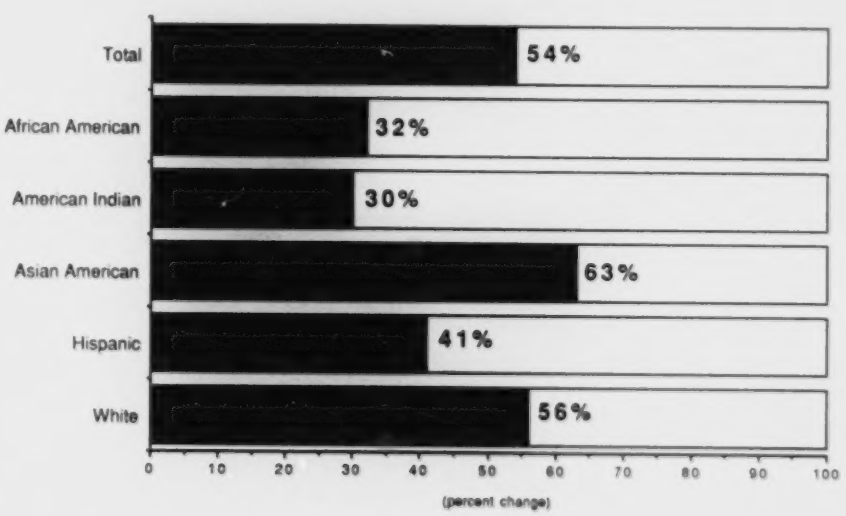
College attrition continues to be high for all students. African American, Hispanic, and American Indian students withdraw from college at higher rates and therefore attain baccalaureate degrees at appreciably lower rates than their white and Asian American peers (Figure 9). Although students' persistence rates vary for myriad reasons, research has shown that when differences in academic preparation and socioeconomic status are controlled, African American students' retention rates equal white students'.[14] Efforts to reduce college attrition must begin at the precollegiate level with dramatic improvement in the academic preparation and educational opportunities offered to low-income and minority youths. Nonetheless, there is much colleges and universities can do on their campuses to reduce student attrition.

This section presents college persistence rates, completion rates, and graduation equity scores for African Americans, Hispanics, Asian Americans, and American Indians. It also analyzes factors within the college environment that relate to minority student retention. Examples of how several campuses have improved persistence and graduation rates for students of color are discussed, along with policy recommendations for campus and state retention efforts.

Most research on minority student attrition begins with the question, "What is wrong with the student?" and proceeds to identify a number of precollege and at-college factors associated with college persistence.[15] Many studies and reports have focused on the relationship between student-related characteristics—academic preparation for college, educational aspirations, attitudes, and socioeconomic background—and college persistence.[16] Although these factors are integral to improving the retention of students of color in higher education, more attention is paid in this report to institutional factors that affect their retention. Consequently, this report emphasizes what colleges and universities can do to retain and graduate more of the African American, Hispanic, and American Indian students who enroll.

College persistence and completion rates are drawn from several sources—the "High School and Beyond" survey (HSB) of 1980 high school seniors conducted by the Department of Education[17] and the "Beginning Postsecondary Students Longitudinal Study 1992 Follow-up of 1989-90 First-time Entrants"(BPS).[18] Averages of the six-year graduation rates of 1983-84, 1984-85, 1985-86, and 1986-87 freshmen at Division I institutions from the National Collegiate Athletic Association (NCAA) study also are included.[19] Limitations of national retention data are discussed in the appendix of this report.

**Figure 9**
**1993 NCAA Division I Graduation Rates**




**Source:** The National Collegiate Athletic Association, *1993 NCAA Division I Graduation Rates Report*, 1993.

*Photo credit: Erik Borg, Middlebury College*

## African Americans

African Americans made considerable progress in increasing their college enrollments during the late 1980s and early 1990s. They have experienced considerably more growth in enrollment than in undergraduate degree awards (Tables 5 and 9). Although their enrollment gains have occurred since the mid-1980s, increases in the number of undergraduate degrees earned during the early 1990s still have not kept pace with these earlier enrollment gains—particularly in the case of African American males.

The college persistence rate for African American students continues to be lower than average. Table 24 presents three-year persistence and attainment rates from the first follow-up of the "Beginning Postsecondary Student" (BPS) study. Of all African American students who entered any type of postsecondary education institution, 31 percent were still enrolled and 21 percent had attained a degree or some type of certificate. Because of differences in survey methodology, the persistence rates in this study were found to be higher than in previous studies.[20]

Persistence and degree attainment differed by institutional type. For African American students who entered community colleges, 24 percent were still enrolled and 23 percent had attained a degree or a certificate. Their completion rate was slightly above the average of 19 percent, while their two-year college persistence was lower than average.

The persistence and degree attainment rates for African American students at four-year public and independent institutions were fairly similar. At public four-year campuses, 57 percent of African American students were still enrolled after three years, and 2 percent of them had earned a degree. At independent four-year institutions, 58 percent were still

enrolled, while 5 percent had completed a degree. These persistence rates compare to an average rate for all students of 62 percent at public four-year institutions and 63 percent at independent institutions.

Although the overall persistence rates for African Americans attending public and independent institutions were similar, their attrition patterns were different. According to the BPS study, first-year attrition rates were higher at public four-year campuses than at independent ones—17 percent and 9 percent, respectively. During the second year of enrollment, attrition was relatively low at both types of institutions, averaging between 7 and 8 percent (Table 25). During the third year of enrollment, attrition rose to 18 percent at public institutions and 21 percent at independent institutions. Third-year attrition rates for African Americans on four-year campuses were somewhat higher than those for other students. These findings are inconsistent with previous retention studies, which indicate that the overwhelming majority of students drop out of college during the first two years.[21] Thus, these findings suggest that further research should be conducted on the college attrition patterns of African American students.

African American students complete college at one of the lowest rates of any student group. Of African American full-time students entering four-year institutions, approximately one-third attain a baccalaureate degree within six years, compared with 50 to 55 percent of all students. Although national college completion rates vary slightly from study to study, as shown in Table 26, the baccalaureate attainment rate of African American students ranges between 26 percent for men attending public institutions and 53 percent for women at independent institutions. In general, independent institutions have higher graduation rates than public institutions. According to the NCAA study, only 29 percent of African American students at public four-year institutions graduate within six years, compared to 50 percent of those attending independent institutions.

According to the same study, African American women complete college at a slightly higher rate than their male counterparts. On average, 29 percent of African American men, compared with 35 percent of their female peers, receive a bachelor's degree within six years.

## Hispanics

Hispanic Americans are attending and graduating from college in greater numbers. Much of this growth in college participation is linked directly to their population growth. Despite their increased representation among undergraduates and college graduates, Hispanic students, like African American students, complete college at a lower rate than the overall student population. Focusing on increasing the retention and achievement of these students prior to, as well as after, college entrance is critical to improving their college outcomes.

Hispanic students persist in college at a slightly higher rate than African American and American Indian students, but at a lower rate than Asian Americans and whites. Data are not available for each Hispanic sub-group, but if college completion patterns for Mexican Americans, Puerto Ricans, Cubans, and South Americans reflect high school completion and college participation patterns, it is likely that there would be considerable variation according to national origin.

According to the BPS data, after three years, 56 percent of all first-time Hispanic postsecondary entrants still were enrolled or had attained a degree or certificate. This includes 40 percent who persisted, while another 16 percent had completed a certificate or a degree (Table 24). These figures include students who enrolled at undergraduate institutions and vocational schools, as well as a small number of graduate and first professional students. As with all students, large differences exist in the persistence and degree attainment patterns of Hispanic students enrolled at different types of institutions.

Of students who enrolled at public two-year colleges, Hispanics had the highest three-year persistence rate (39 percent) but the lowest degree attainment rate (13 percent). This difference lends itself to a variety of interpretations: Hispanics may take longer to attain a two-year degree or certificate because they "stop out" of college more frequently than other students or because a larger percentage transfer to other institutions without completing degrees at two-year institutions. These differences warrant further study in BPS follow-up surveys.

College persistence estimates for students enrolled at four-year institu-

tions range between 42 percent and 65 percent, depending on the type of institution and the persistence time-frame (Table 24). The HSB study of 1980 high school seniors yielded a four-year persistence rate of 42 percent for first-time, full-time Hispanic students. This figure is considerably lower than three-year BPS persistence rates of 64 percent for first-time Hispanic students at public four-year institutions and 65 percent for those at independent institutions. However, as discussed earlier, differences in survey methodology may account for some of this variation.

Like African Americans', Hispanics' attrition patterns in the BPS study differed at public and independent institutions. For Hispanic students at public four-year institutions, attrition was greatest during the first two years of college, with nearly one-quarter leaving college, compared to only 8 percent leaving during the third year (Table 25). While Hispanic students' attrition rate at independent colleges and universities was less during their first year (9 percent), it increased to 12 percent during their second year and to 13 percent during their third year.

Estimates of baccalaureate attainment for Hispanic students range from 31 to 66 percent, somewhat higher than those for African Americans and American Indians. Like African Americans', the difference between Hispanic students' completion rates at public and independent institutions is considerable—36 percent versus 64 percent. Likewise, Hispanic women graduate from both public and independent four-year colleges at rates slightly higher than their male peers'. Based on NCAA data, approximately 43 percent of Hispanic females earn a bachelor's degree within six years; 39 percent of Hispanic men earn a bachelor's degree within six years.

*Photo credit: Texas Woman's University – Houston Center*

## Asian Americans

All indicators suggest that Asian American students' persistence and degree attainment rates are the highest of all racial and ethnic groups. According to the HSB study of 1980 entrants, 61 percent of Asian American students persisted in college for four years, and 56 percent received a baccalaureate degree within five and one-half years (Tables 24 and 26). Data from the more recent BPS survey reveal similar trends: of all Asian American students enrolling at postsecondary institutions, 75 percent either were still enrolled or had received some type of certificate or degree after three years. Of that number, 12 percent received a degree or certificate, which means the vast majority (63 percent) of these students persisted (Table 24).

At four-year public and independent institutions, these students persisted at approximately the same rate. Seventy-five percent of Asian American students at public colleges and universities were still enrolled three years later, and an additional 3 percent had received a degree. This compares to 71 percent of their peers at four-year independent campuses who persisted and 5 percent who received degrees. In comparison, 66 percent of all students at four-year public institutions and 68 percent of all students at independent institutions persisted or held degrees.

On average, 55 to 65 percent of Asian American students who enroll

at four-year institutions complete a bachelor's degree within five and one-half to six years. According to NCAA data for Division I schools, Asian Americans graduate from four-year independent institutions at rates above those for Asian Americans at public colleges and universities—76 percent compared with 59 percent (Table 26). A slightly higher percentage of Asian American women than men receive baccalaureates at both public and independent institutions. According to data from the NCAA study, Asian American women at independent colleges have the highest four-year graduation rate of any ethnic group (78 percent).

## American Indians

National data on American Indian students' persistence and graduation rates are virtually nonexistent. Neither the HSB study nor the BPS study includes data on enough American Indian students to produce reliable estimates at either the two-year or the four-year level. The importance of oversampling for this student population in national databases cannot be emphasized enough.

According to the limited data that are available from the BPS survey, American Indians persist in college at the lowest rate of all postsecondary entrants. As Table 24 shows, three years after enrolling, only 43 percent of American Indians were still enrolled in college (27 percent) or had attained a degree or certificate (16 percent). This compares with 59 percent of white students, 52 percent of African American students, 56 percent of Hispanic students, and 75 percent of Asian American students.

The only source for four-year completion data for this group is the NCAA survey, which indicates that American Indian four-year freshmen receive baccalaureate degrees at rates slightly below those for African Americans. On average, 30 percent of all American Indians at NCAA Division I institutions graduate within six years (Table 26). Degree attainment patterns for American Indian men and women are similar to other groups, with women completing college at a slightly higher rate than men—31 percent compared with 28 percent.

American Indian students at independent colleges and universities earn bachelor's degrees at a rate lower than that of other students. However, they followed general graduation trends in that they completed degrees at a much higher rate than American Indian students at four-year public institutions. Overall, 49 percent of American Indians who enroll at independent four-year institutions as freshmen graduate within six years, while only 27 percent of those at public institutions do so. Attention must be paid to improving the college persistence and graduation rates of American Indian, as well as African American and Hispanic, students.

## Environmental Factors and Minority College Completion

Colleges and universities, regardless of mission, type, size, or location, can improve their retention of students of color by creating environments that improve the achievement of all students. The institutional capability to create this kind of balance between serving a diverse student population and improving academic achievement should be considered a hallmark of institutional quality. Strong campus leadership and faculty support are key elements in developing an institutional environment and culture that promote student retention, as are the attitudes and interactions of students with other students as well as with faculty and staff.[22, 23]

Student recruitment and retention are most successful when one coherent, comprehensive, and integrated process is institutionalized from the boardroom to the classroom. Strategies that tie together recruitment, admission, financial aid, academic advising, and student support services as parts of a campus-wide effort to create systemic change have been found to have the greatest impact on improving minority student retention. A study of programs and policies at four predominantly white four-year campuses with good retention rates for students of color found that institutional efforts were designed to help students succeed by addressing the academic, financial, and personal issues that frequently serve as barriers to persistence.[24] Retention efforts differed at each of the four institutions. And although the institutions varied in size, funding, geographic location, and specific approach to reducing minority attrition, they had the following elements in common: (1) substantial institutional commitment to student retention, and to minority student retention in particular; (2) the presence of a stated policy regarding retention; (3) substantial faculty support for and involvement in retention efforts; (4) comprehensive academic support services with a dedicated staff; (5) systematic collection of data to monitor and follow up on students' progress; (6) no stigma attached to participating in special programs; and (7) institutionalization of retention efforts. These practices and strategies are applicable to both predominantly majority and minority institutions. Several of these factors are discussed below.

## Institutional Commitment to Student Retention

To be effective, a student retention strategy requires the institution's governing board and president to make a commitment to this goal. This fundamental commitment should be expressed in the institution's mission statement, be central to its strategic and long-range plans, be reflected in the hiring and promotion of faculty and staff of color, and be supported by a long-term commitment of institutional financial resources. Statements concerning the importance of improving student retention issued by the board and/or president are important beginnings, for both practical and symbolic reasons.

While presidential and board commitment are important, they cannot accomplish real change without support and leadership throughout the institution.[25] Improving student retention at most campuses is a complex responsibility that cannot be addressed simply by creating another program that eventually may become marginalized because it is not viewed by campus constituents as central to their work. Therefore, the leadership of and commitment to these efforts need to be broadly distributed throughout all administrative units and academic departments.

It is essential for colleges and universities to increase the number of student-oriented faculty, staff, and administrators, both majority and minority, who are committed to implementing effective institutional practices for improving student retention, who will help mentor students of color, and who will serve as role models. At predominantly white campuses, inherent in developing and maintaining an institutional environment that promotes increased persistence and degree attainment by students of color is the employment of a critical mass of faculty, staff, and administrators of color with sufficient influence in the institutional culture. As faculty and staff change their attitudes and behaviors to respond to initiatives that promote increased student persistence and achievement, the organizational culture shifts to provide a more productive academic and social environment for students who differ in preparation or in racial/ethnic background from those an institution traditionally has served.[26]

*Photo credit: Bob Kalmbach, University of Michigan, Ann Arbor*

## Faculty Involvement

Quality interaction with faculty seems to be more important than any other single factor in determining minority students' persistence.[27] But in most instances, minority students' involvement with faculty—particularly at predominantly white campuses—is considerably less than majority students'. Research indicates that "classroom interactions between faculty and students clearly favor nonminority class members (a) to whom more complete answers are given and (b) to whom more complex questions are directed."[28] Improving the number, the kind, and the quality of faculty/student interactions is an essential factor in promoting academic success.[29]

"Faculty involvement," therefore, refers not only to faculty members' role in students' classroom experiences, but also to their active participation in academic retention efforts and to creating an environment within academic departments that sets high expectations for minority student success. Many faculty members and administrators need to rid themselves of the "sink or swim" attitude that too often is conveyed to students. Educational experiences that promote student achievement include high self-valuation by the student; high expectations and involvement by faculty; a rigorous and engaging learning environment; and educational intervention strategies that remove academic achievement differentials.[30]

## Academic Support Services

Integrated and comprehensive academic support services are vital to reducing student attrition. Because many African American, Hispanic, and American Indian students are less likely than majority students to seek out academic advisors and counselors, academic advising systems that are both supportive and proactive are key to retaining these students. The five most critical components in effective academic advising are (1) proactive interventions; (2) small-group tutorials; (3) an emphasis on study skills, learning strategies, and test-taking techniques; (4) improvement of students' basic skills; and (5) quality teaching.[31] Mentoring and advising help students make the link between coursework and careers and encourage staff to identify academic problems early so that they can intervene before problems threaten persistence.[32]

Proactive academic interventions are needed during or before the student's first term on campus. Academic interventions that are provided in a coherent manner and with the support of faculty help boost students' self-esteem and keep them

**Figure 10**
**Equity Scores for Graduation for California Public Four-Year Institutions and California State University, Dominguez Hills**

(percent)

| | AFRICAN AMERICANS | | HISPANICS | |
|---|---|---|---|---|
| | CSUDH | State Public Four-Year | CSUDH | State Public Four-Year |
| **1980** | 100 | 65 | 100 | 87 |
| **1986** | 71 | 45 | 100 | 83 |
| **1992** | 84 | 78 | 117 | 94 |

**Source:** Richard Richardson and Elizabeth Skinner, *Achieving Quality and Diversity*, 1991. State of California Postsecondary Education Commission, "Fall 1987 Enrollment" survey and "1991-92 Completions" survey. California State University at Dominguez Hills, Office of Institutional Research, "Fall 1987 Enrollment-Ethnic Distribution" survey and "1991-92 Completions" survey.

motivated to persist in their educational goals. Early identification of students who are experiencing academic difficulties can be accomplished through early warning systems that rely on faculty to identify and refer students for course-specific assistance. Proactive intervention also includes summer programs for entering students that boost their academic skills and help them develop social and study networks early in their academic careers.

Small-group tutorials are considered to be more effective in the delivery of academic assistance than one-on-one tutorials. Treisman designed an intervention program placing a skilled graduate student in charge of small study groups of African American and Hispanic students for mathematics courses.[54] As a result of being engaged in this kind of study experience, students became more aware of their own flaws and inconsistencies in thinking, more self-confident, and more interactive with their peers. Attrition levels within the mathematics course greatly declined. Several study projects conducted by Frierson demonstrated the importance of study groups for improving student achievement.[54] Frierson worked with two groups of academically at-risk nursing students and found that students who were taught test-taking skills within cooperative learning groups outperformed students who were not exposed to this learning strategy. Yet few institutions use cooperative learning and group tutorials as regular academic intervention methods because they require more planning, organizing, and interacting among both students and faculty.

## Campus Climate and Institutional Environment

Studies of both predominantly black and predominantly white institutions have found that academic performance is strongly related to college satisfaction, high levels of involvement in college life, and, as discussed earlier, favorable relationships with faculty members.[55] Institutions need to routinely gauge minority students' perceptions of the college environment to determine whether they feel isolated from mainstream activities. An inhospitable campus environment can be overt and conspicuous or quite subtle.[56] More often than not, the problems on most majority campuses are subtle, but pervasive.

Students from different ethnic/racial backgrounds have different perceptions of the college environment that need to be addressed. African American students at predominantly white colleges tend to experience significantly greater feelings of academic and social isolation than other students.[57] African American students frequently encounter problems of cultural adjustment, social isolation, and racism on predominantly white campuses. Other studies have shown that Hispanic and American Indian students often feel greater alienation, have less satisfactory relations with peers and faculty than their white counterparts, and consequently perceive the predominantly white college environment in much the same way as African American students: unsupportive and unengaging. Munoz found that Chicano undergraduates experience higher levels of stress and poorer cultural adjustment than white students.[58] They tend not to be involved in mainstream activities on campus and come to feel marginal; they are then more likely to drop out.

"The climate of a campus is often affected by the reactions of majority students to what they perceive as 'self-segregation' when students of color gather by themselves to study, eat, or socialize."[59] White students often mistakenly perceive students of color—particularly blacks and Hispanics—as hostile or separatist. However, similar assumptions are seldom made about white students gathering by themselves. These differences in attitudes and perceptions add to campus tension and must be addressed through education and interaction between and among different ethnic groups.

Climate issues are best approached by using a variety of strategies.[60] These strategies include, but are not limited to: cultivating pluralism in cultural and extracurricular activities; establishing a policy concerning bias and bias incidents; building a critical mass of people of color on campus; providing adequate financial and human resources to improve the climate; having students implement peer counseling programs; and establishing special orienta-

tions for entering students. It is essential first of all to recognize that no campus is free of racial or ethnic prejudice; consequently, improving the campus climate must be given systematic attention as an issue that affects all campus constituents. Second, training programs must be provided for administrators, faculty, staff, security personnel, and students that help sensitize people of all races to the perceptions and feelings of others.

## Financial Support

The reduced availability of financial aid is cited frequently as the primary reason for the lower rates of participation by underrepresented ethnic minorities in higher education.[41] Financial difficulty is the reason cited most frequently by students for withdrawing from college. Among African American students at four-year institutions, unaided students withdrew from college at a rate almost twice that of financially aided students.[42] Hispanic students who received grants or federal loans were more likely to earn a four-year degree than those who did not receive grants or loans.[43]

Many education analysts have found that opportunities to pursue higher education are diminishing for low-income students, a high percentage of whom are racial and ethnic minorities.[44] As real income among all but the wealthy stagnates or declines, as federal- and state-funded grant-based aid is reduced compared with loan-based aid, and as higher education's share of most state budgets continues to decline, the likelihood of youths of color from low- to moderate-income families completing a four-year college degree decreases.[45] Experience has shown that grants, scholarships, and grant/loan combinations have a greater positive effect on minority persistence and degree completion than reliance only on loans. Consequently, rising educational costs, coupled with reduced levels of federal grants, have made it more difficult for low- and moderate-income students to persist in college.

However, financial aid alone does not ensure that students will persist. The fact that financial aid programs make it possible for low- and moderate-income minority students to persist in college does not negate the importance of addressing the other issues that have been discussed. Students of color who receive financial aid still drop out of college at higher rates than their white counterparts.[46] Consequently, institutions that provide sufficient support to meet students' financial needs and also focus their resources on the kinds of environmental and academic issues discussed above have achieved greater success in retaining and graduating students of color.

## Case Studies: Colleges that Graduate Minority Students at Above-Average Rates

Despite the obstacles cited above, some colleges manage to graduate high percentages (above the national average) of minority students. They utilize many of the strategies described above and thus can serve as models for similar institutions that are dissatisfied with their retention efforts.

Two institutions are highlighted: California State University, Dominguez Hills, a public, four-year, open admission institution, and Mount Saint Mary's College, a private, four-year, relatively restricted admission institution. While most institutions confront unique sets of problems, making the institutions highlighted here an imperfect match for those seeking to resolve problems pertaining to minority retention and graduation, the commonalities among institutions may provide a foundation upon which all can build.

California State University, Dominguez Hills (CSUDH) and Mount Saint Mary's College (MSMC) were selected because they have been studied thoroughly, have published their results, have good data, and have shown that "fundamental changes in institutional practices and priorities...influence faculty and staff attitudes about the compatibility of quality and student diversity."[47]

California State University, Dominguez Hills and Mount Saint Mary's College have the following characteristics in common:

- High percentages of ethnic minority students;
- Committed leadership from top administration regarding student retention;
- Established programs designed specifically to enhance minority retention;
- A good data base to facilitate monitoring and follow-up efforts; and
- Widely publicized outcomes.

### California State University, Dominguez Hills

CSUDH was involved in a lengthy and well-documented study conducted by Richardson and Skinner.[48] At the outset of their study, the authors record an observation that is fundamental to successful programs:

> Graduation rates for African Americans are low at many selective institutions because admission requirements and recruiting strategies have increased student diversity without compensatory changes in the environments provided for student achievement. Administrative interventions to increase diversity must be balanced by interventions to maintain or improve achievement to prevent graduation rates from declining.[49]

Richardson and Skinner maintain that institutions go through three stages in grasping the importance of enhancing minority student retention. Stage one, the "reactive stage," occurs when the emphasis is on recruitment, financial aid, admissions, etc. Stage two, the "strategic stage," occurs when the institution realizes it must have "more comprehensive and better coordinated intervention." Stage three, the "adaptive stage," is when

the institution realizes that "student professional efforts must be augmented by faculty involvement and change in academic practices...and curriculum" as it attempts to mainstream successful institutional practices.[50]

CSUDH itself passed through these stages before implementing its institution-wide program. (A note of caution to institutions planning to move rapidly into a campus-wide program: Some departments and units must be brought along gradually in terms of their commitment to a comprehensive and integrated effort. As an integral part of this progress, as different initiatives are being developed, it is essential that much attention be given to improving connections and relationships between and among the admission office, academic departments, student support services, academic advising, career advising, and the graduate office so that attention is given to the whole rather than to the parts.

Among the elements introduced at CSUDH were: placing a strong emphasis on community college articulation; providing each student with a faculty mentor; making financial aid offices available in the evening; setting expectations for faculty performance; and developing an early intervention program that includes outreach to junior high schools.

It is important to note that each of these interventions was implemented over a period of time, with some trial and error mixed into the process. However, the cumulative impact on the outcomes was measurable and significant. Despite some setbacks in terms of changes in state admission standards, changing student demographics, etc., subsequent equity scores for graduation are well above state averages for minority groups (Figure 10). Equity scores for graduation (ESG) are calculated using Richardson's model by dividing the graduation rate of a particular ethnic group by their proportion of the undergraduate student body four or five years earlier. Equity, then would be shown if the percentage of full-time undergraduates for a given racial/ethnic group are approximately equivalent to that same group's representation in the pool of baccalaureate recipients. Richardson and Skinner conclude that "CSUDH is an exemplar of the comprehensive and systematic strategies required to transform the culture of a university so that it accommodates both achievement and diversity."[51]

## Mount Saint Mary's College

MSMC is unique in that it has both a four-year campus and a two-year campus "for those not academically prepared to enter the four-year program." Since it opened the Doheny (two-year) campus, significant numbers of students have successfully completed the associate degree program and transfered to MSMC's baccalaureate program.[52] (That is why the program is described as "relatively restricted" with regard to admissions.)

MSMC Doheny campus has a student body that is approximately 57 percent Hispanic, 18 percent African American, and 10 percent Asian American. Moreover, 98 percent of the students are first-generation college students, and 50 percent come from families living below the poverty level.[53] The students' average GPA is a little above 1.7, and their average SAT score is less than 700. These students meet all the criteria for high-risk students.

MSMC did not adopt its retention program overnight; instead, it developed it on a program-by-program basis; only after much trial and error were the individual programs integrated with one another. MSMC's retention efforts still are not noted for their comprehensiveness. Retention efforts include: diagnostic testing for all admitted students with a GPA below 2.0; required remedial courses for all students whose tests reveal weakness in certain areas (these courses are graded "credit/no credit" so that a student can repeat them as many times as necessary and raise his or her competency level without affecting his or her GPA); and a required semester-long orientation course.[54] In addition, the college has instituted an early-warning system to notify advisors immediately if a student is falling behind in any course. Students are encouraged to live on campus because research has demonstrated that student success is enhanced when resident life is controlled.

Outcomes of MSMC's programs are documented and impressive. Moreover, follow-up measures are taken when a student transfers from the Doheny campus to the main campus. *Money* magazine rates MSMC's student body as only a 3 with regard to quality (on a scale of 1 to 5, with 5 being the lowest),[55] yet its five-year

*Photo credit: R. Steve Dick, University of Kansas*





BEST COPY AVAILABLE

baccalaureate graduation rate of 67 percent and more than 50 percent transfer rate are both well above the state averages for students of color.

These two programs have been described briefly and at the risk of oversimplification, but their outcomes are impressive. They demonstrate the kinds of results that can be obtained with students of color who are considered "high risk"; more importantly, they demonstrate that greater access is not incompatible with quality and that minority student achievement can be greatly improved. Thus, these programs can serve as models of what institutions are capable of achieving when they choose to make access and quality high priorities.

Not only can institution-wide programs be successful, but department, division, and individual instructors' programs have had equally stunning results and have served as models for encouraging campuses to embark on large-scale strategies. The work of Uri Treisman at Berkeley, Sheila Tobias at numerous institutions, Henry Frierson at the University of North Carolina at Chapel Hill, and Lewis Kleinsmith at the University of Michigan is exemplary in this regard.

## Policy Implications

Studies of retention information present a number of philosophical problems for members of academe and for state legislators. Academics are torn between their stated commitment to maximizing the education of every student and their almost unconscious adherence to the social Darwinism that pervades the academy. Thus, they are torn between maintaining high and rigorous standards and being deeply suspicious of large numbers of students—especially minorities—being able to meet those standards. They become guilty of buying (if unconsciously) into the "infallibility" of the normal distribution curve of abilities whereby only a few excel and some are destined to fail. State legislators, on the other hand, are looking only to the "bottom line" and are troubled by the high attrition rates in higher education and by how little "bang" we seem to be getting for the "state education buck."

As a result, educators and policy makers may be talking past each other, with educators equating "quality" with how few attain it and legislators equating "efficiency" with how many students graduate. It may be necessary, therefore, to reach a common definition of excellence to arrive at a common definition of who can attain it.

Rather than talking about excellence, educators could focus on "curriculum mastery"—that is, define operationally what constitutes curriculum mastery, and then motivate and reward everyone who attains it. This avoids the dilemma of desiring

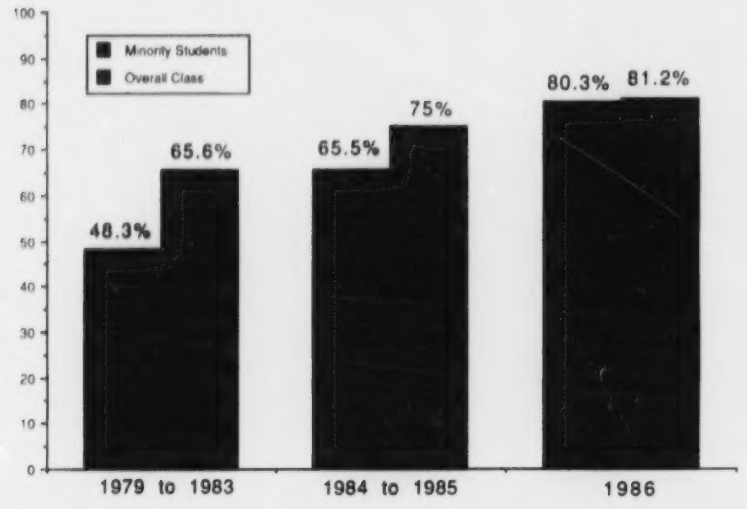
*Photo credit: St. Mary's University*





BEST COPY AVAILABLE

**Figure 11**
**Introductory Biology Course**
**Mean Exam Scores**




**Source:** Kleinsmith, Lewis J. A Computer-based Biology Study Center: Preliminary Assessment of Impact. *Academic Computing* 1987, 2, 3, 32-33, 49-50, 67.

excellence but believing only a few can achieve it.

This is what Lewis Kleinsmith achieved when he revised his course in introductory biology around an interactive computer program, motivating students to master the curriculum and rewarding students for achievement.[56] The results he obtained are detailed in Figure 11, which reveals several things: minority students' mastery levels soared; mastery levels increased dramatically for students overall; the majority of students "excelled" by any definition; no statistically significant difference was found between majority and minority students at the end of the exercise; and, most important, this was not a minority program, but was instituted for the entire class.

The policy implications that flow from the examination of environmental factors that affect student retention, the results of the case studies, the Kleinsmith study, and similar exemplary programs are:

- Student retention and achievement can be vastly improved for both majority and minority students at institutions that reward such achievements equally with research and publications.

- Student retention programs are financially efficient in terms of state legislative investment, without coercive measures, and they yield greater returns for the dollar in terms of improved student outcomes.

- These studies show that current outcome measures as demonstrated by six-year graduation rates (for whites, 56 percent; for Asian Americans, 63 percent; for Hispanics, 41 percent; for African Americans, 32 percent) can be nearly equalized at a mastery level with all students, thus laying to rest the debate between access and quality.

- Most demographic studies show that the number of "nontraditional" students will increase, so improved retention efforts are a vital preparation for the future.

## Conclusion

An increasing number of institutions are focusing their attention on improving retention, either for moral reasons or because of stringent state budgetary pressures. They are searching for ways to increase faculty productivity while at the same time respecting tenure and academic freedom. They are beginning to realize that commitment to student outcomes requires a shift in the philosophy of the institution toward openness, welcoming, emphasis on student success, and a reversal of those attitudes that result in institutions being labeled as "tough" and "maintaining high standards." Colleges and universities will learn that they can be welcoming and nurturing and yet retain their commitment to expecting the highest academic quality of their students.

The change in institutional climate for students must be accompanied by changes in institutions' reward structures and expectations of faculty; otherwise, no institutional change will occur. The necessary changes can be implemented only by the top leadership of the institution sending a clear message of its intentions. James Duderstadt, president of the University of Michigan, made this clear when he announced the establishment of the Michigan Mandate:

> The leadership of the University of Michigan is firmly convinced that our institution's ability to achieve and sustain a campus community recognized for its racial, cultural, and ethnic diversity will in large part determine our capacity to serve successfully our state and nation and the world in the challenging times before us. Indeed, this diversity will become a cornerstone of our efforts to achieve excellence in teaching, research, and service in the years ahead.[57]

Such an announcement sets the stage for the subsequent development of changes in the faculty reward structure, the emphasis on teaching and learning, and changes in the institutional climate—all of which are necessary to effect changes in student outcomes. Only then will the "corporate climate" of our institutions of higher learning change to meet the needs of the twenty-first century.

# Notes

1 U.S. Department of Commerce, Bureau of the Census, *Minority Economic Profiles*. Washington, DC: U.S. Bureau of the Census, 1992, 4.

2 U.S. Department of Commerce, Bureau of the Census, Current Population Reports, P20-459. *The Asian and Pacific Islander Population in the United States: March 1991 and 1990*. Washington, DC: U.S. Government Printing Office, 1992, 20.

3 U.S. Department of Education, National Center for Education Statistics. *Trends in Racial/Ethnic Enrollment in Higher Education*. Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement, 1990, 14.

4 U.S. Department of Education, National Center for Education Statistics. *Trends in Enrollment in Higher Education by Racial/Ethnic Categories: Fall 1982 through Fall 1992*. Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement. In presenting its data, NCES cautioned that it has imputed prior years' enrollment data to account for nonresponding institutions.

5 U.S. Department of Commerce, Bureau of the Census, Current Population Reports, P23, No. 183. *Hispanic Americans Today*. Washington, DC: U.S. Government Printing Office, 1993, 2.

6 The 1991 NAFEO "Fall Enrollment" survey included only the 102 HBCUs that are NAFEO members. The 1992 survey contained enrollment data from all 107 HBCUs.

7 Enrollment changes for African Americans at non-HBCUs were calculated using data from NCES in Table 4 and National Association for Equal Opportunity Research Institute enrollment data for HBCUs in Table 7.

8 Carter, Deborah J. and Reginald Wilson. *Ninth Annual Status Report on Minorities in Higher Education*. Washington, DC: American Council on Education, 1990, 4.

9 U.S. Department of Education, National Center for Education Statistics. *Trends in Racial/Ethnic Enrollment in Higher Education: Fall 1980 through Fall 1990*. Technical Appendix. In presenting its data, NCES cautioned that imputed enrollment data for nonresponding institutions and cases with incomplete data accounted for 2.9 percent of the enrollment data for all institutions and 0.7 percent for public four-year institutions. The proportion of imputed data for independent four-year institutions was 2.9 percent and 8.5 percent for independent two-year institutions.

10 Because data are imputed for nonreporting and nonresponding institutions at the national level and not at the state level, data by state Tables 18-23 do not sum to the national totals shown in Tables 8 and 9. It also should be noted that comparisons between 1981 and 1991 data must be made with caution. In 1981, the Higher Education General Information Survey HEGIS questionnaire asked institutions to make sure that all degrees for U.S. citizens were classified by the five racial/ethnic types. In 1991, the Integrated Postsecondary Education Data System IPEDS questionnaire carried a "race unknown" category which is not shown in data summaries. As a result, the 1991 data in Tables 18-23 for the five racial/ethnic classifications sum to a total that is 3.8 percent less than the total of U.S. baccalaureates shown in Table 9.

11 For each minority group, a large population state is defined as one of the 20 states in which the largest number of people in that particular racial/ethnic group reside.

12 *Jake Ayers, Jr. and the United States of America v. Kirk Fordice, Governor, State of Mississippi*, 90-1205 and 90-6588 Fifth Cir., 1992.

13 *Adams v. Richardson*, 480 F. 2d 1159 DC Cir., 1973.

14 Ramist, L. and S. Arbeiter. *Profiles, College-bound Seniors*. New York: College Entrance Examination Board, 1986.

15 Levin, Mary E. and Joel R. Levin. "A Critical Examination of Academic Retention Programs for At-Risk Minority College Students," *Journal of College Student Development*, July 1991, 32: 324.

16 Mow, Shirley L. and Michael T. Nettles. "Minority Student Access to, and Persistence and Performance in, College: A Review of the Trends and Research Literature," *Higher Education: Handbook of Theory and Research.* New York: Agathon Press, 6, 1990, 35–105.

17 Carroll, Dennis. *College Persistence and Degree Attainment for 1980 High School Graduates: Hazards for Transfers, Stopouts, and Part-timers.* Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement, January 1989.

18 U.S. Department of Education, National Center for Education Statistics. *Persistence and Attainment Education for Beginning AY 1989–90 Students as of Spring 1992.* Washington, DC: Office of Educational Research and Improvement, November 1993.

19 National Collegiate Athletic Association. *Division I Graduation-Rates Report.* Overland Park: National Collegiate Athletic Association, June 1993.

20 In general, BPS persistence rates are higher than those from the 1980 High School and Beyond (HSB) survey. In the HSB study, only 43.5 percent of all African American four-year entrants persisted, compared to 60.9 percent of all four-year entrants. Methodological differences in the two studies may account for much of this variation. The HSB survey counted all "stopouts" as nonpersisters; it only included students who had completed high school during the term prior to entering college full time, and it measured persistence after four years instead of three. The BPS study measures persistence as continued enrollment during this three-year period, not as continuous enrollment (e.g., students may have skipped terms as long as they were re-enrolled before being interviewed). The BPS study includes undergraduates, as well as a small percentage of graduate and professional students, who may persist at higher rates than undergraduate students. This study also includes full- and part-time students. Consequently, the BPS persistence measure was less restrictive than the measure used in the HSB study, and it measured persistence over a shorter time period, which would yield higher persistence rates.

21 U.S. Department of Education, National Center for Education Statistics. *Persistence and Attainment in Postsecondary Education for Beginning AY 1989–90 Students as of Spring 1992.* Washington, DC: Office of Educational Research and Improvement, NCES 94-477, November 1993.

22 Clewell, Chu Beatriz and Ficklen, Myra S. "Effective Institutional Practices for Improving Minority Retention in Higher Education," *The Journal of College Admissions.* 1987: 7–13.

23 Green, Madeleine F. *Minorities on Campus: A Handbook for Enhancing Diversity.* Washington, DC: American Council on Education, 1989.

24 Clewell et al., "Effective Institutional Practices": 8.

25 Green. *Minorities on Campus.* 7–13.

26 Richardson, Richard C. Jr. and Elizabeth Fisk Skinner. *Achieving Quality and Diversity.* Washington, DC: American Council on Education/Macmillan, 1991, 13–18.

27 Astin, Alexander W. *Achieving Educational Excellence.* San Francisco: Jossey-Bass, 1985, 2.

28 Levin and Levin. "A Critical Examination of Academic Retention": 324.

29 Donovan, R. "Path Analysis of a Theoretical Model of Persistence in Higher Education among Low-Income Black Youth," *Research in Higher Education.* 21: 243–258.

30 Wilson, Reginald. "Curricular Diversity and Academic Achievement," *Liberal Education,* 1991, 77, 1: 12–15.

31 Levin and Levin. "A Critical Examination of Academic Retention": 325–330.

32 Lee, Courtland. *Achieving Diversity: Issues in the Recruitment and Retention of Underrepresented Racial/Ethnic Students in Higher Education.* Washington, DC: National Association of College Admission Counselors, 1991, 26.

33 Fullilove, Robert E. "Mathematics Achievement among African American Undergraduates at the University of California, Berkeley: An Evaluation of the Mathematics Workshop Program," *Journal of Negro Education,* 1990, 59: 3.

34 Frierson, Henry T. *Intervention Can Make a Difference: The Impact on Standardized Test and Classroom Performance.* Office of Medical Education, University of North Carolina–Chapel Hill, 1986.

35 Crosson, Patricia. "Four-Year College and University Environments for Minority Degree Achievement," *The Review of Higher Education,* 11, 4: 365–382.

36 Green, *Minorities on Campus.* 113.

37 Allen, Walter R. "Improving Black Student Access and Achievement in Higher Education," *The Review of Higher Education,* 1988, 11, 4: 403–416.

38 Munoz, D. G. "Identifying Areas of Stress for Chicano Undergraduates" in M. A. Olivas, ed., *Latino College Students.* New York: Teachers College Press, 1986.

39 Green. *Minorities on Campus.* 114.

40 Ibid. 115–128.

41 Aston, Barbara and Elsa Nunez-Womack. Pursuing Diversity: *Recruiting College Minority Students, ASHE-ERIC Higher Education Report No.* 7. Washington, DC: The George

Washington University, School of Education and Human Development, 1990.

42 Darling-Hammond, Linda. *Equality and Excellence: The Educational Status of Black Americans.* New York: College Entrance Examination Board, 1985.

43 Astin, Helen S. and Cecilia P. Buciaga. *Chicanos in Higher Education: Progress and Attainment.* Los Angeles: Higher Education Institute, November 1985.

44 Gold, Lawrence N. "Improving College Access for Needy Adults under Existing Federal Programs" in Judith Eaton, ed., *Financing Nontraditional Students: A Seminar Report.* Washington, DC: American Council on Education, 1992.

45 Mortenson, Thomas. "Blacks Still Only Half as Likely as Whites to Attain Baccalaureate Degree," *Postsecondary Education Opportunity.* Iowa City: The Mortenson Report on Public Policy Analysis of Opportunity for Postsecondary Education, 1993: 18.

46 Murdock, Tullisee A. "Financial Aid and Persistence: An Integrative Review of the Literature," *National Association of Student Personnel Administrators Journal,* 1990, 27, 3: 213-221.

47 Richardson and Skinner. *Achieving Quality and Diversity,* 4.

48 Ibid. 190-206.

49 Ibid. 40.

50 Ibid. 42-43.

51 Ibid. 206.

52 Green. *Minorities on Campus,* 174.

53 Ibid. 174-175.

54 Ibid. 175.

55 "Money's Guide to 1,003 Colleges," *Money Guide: Best College Buys,* 1994: 85.

56 The Michigan Mandate: *A Strategic Linking of Academic Excellence and Social Diversity.* Ann Arbor: The University of Michigan, March 1990, 1.

# Appendix

## Limitations of National Retention Data

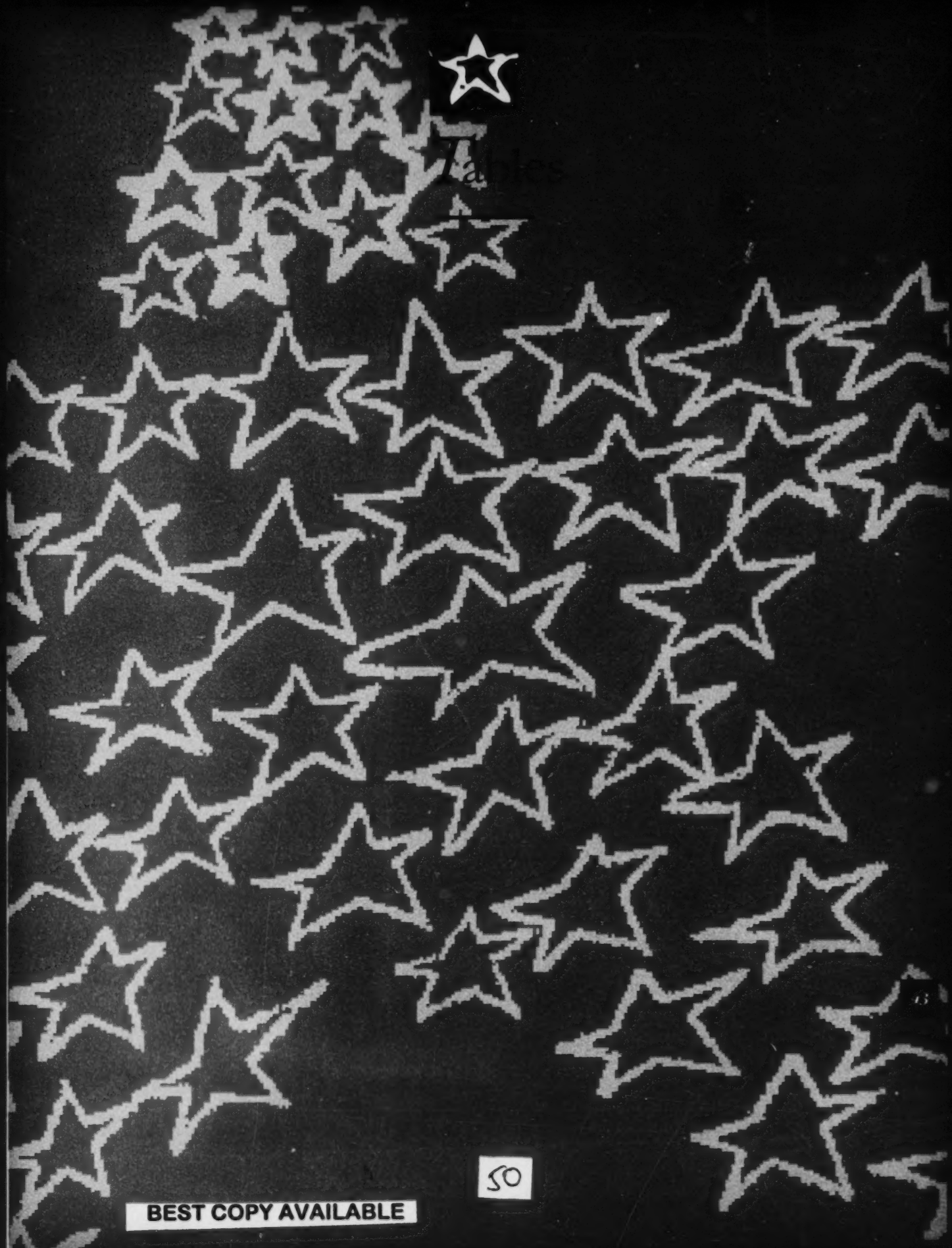
Most retention studies are conducted by individual campuses or at the state level; however, despite the importance of such studies, no single definition of "retention" exists. It is therefore inaccurate to determine national retention trends on the basis of institutional and state retention rates. Most often, retention is defined only in terms of full-time students. (One of the shortcomings of this definition is that it excludes the nearly 45 percent of all college students who attend part time.) Thus, retention is sometimes defined as the rate of graduation for a cohort of students within a specified time period; still others base their definition of retention on enrollments after the freshman year.

Second, apart from research the U.S. Department of Education has based on the major longitudinal databases (National Longitudinal Study of 1972, the High School and Beyond Sophomore and Senior Study, and the Beginning Postsecondary Longitudinal Students Study), few data on national retention exist that are based on student reports. Institutions vary in their ability to provide precise retention information; few are able to report students' reasons for leaving the institution, and even fewer are able to report on students' subsequent re-enrollment at other campuses.

Third, institutional retention studies measure college completion in different time increments. Increasingly, national retention studies are based on five- or six-year increments. However, for students who stop in and out of college or attend part time, as do many students of color, using a five- or six-year time frame to measure degree attainment may underestimate these students' completion rates. Differences in degree attainment may be reduced by using a longer time frame to measure degree completion.

To further complicate the situation, many institutions have only recently started collecting data on retention and persistence, and many are unable to provide retention data by race and ethnicity. Some institutions consider persistence and retention information to be highly sensitive and therefore request confidentiality when retention data are released. For example, less than 70 percent of the institutions surveyed in a recent retention study sponsored by the Planning and Evaluation Service of the U.S. Department of Education could provide persistence and completion data on African American and Hispanic students. Because of the poor response rate, the racial/ethnic data in this study were considered unreliable. The federal government now requires colleges and universities to collect retention data, but it has given them little guidance on what methodologies to use.

Finally, it is difficult to calculate the effects of institutional programs on retention when the existence and nature of those programs are themselves affected by retention. Because institutional selectivity affects retention directly, straight comparison of retention rates among different types of institutions may lead to inaccurate conclusions about retention efforts on different campuses. For example, an institution with low retention that enrolls a higher percentage of "at-risk" students and establishes a highly effective retention effort that increases the persistence and completion rates of its students still is likely to have a lower retention rate than a "more selective" institution. Thus, one might conclude that the retention efforts at the first campus are ineffective—particularly when one compares it to campuses characterized by different missions and varying levels of selectivity. For each of these reasons, collecting and analyzing retention data across different types of institutions is difficult, at best.





BEST COPY AVAILABLE

## Table 1
# High School Completion Rates and College Participation Rates by Race/Ethnicity, 1972 to 1992

| Year | 18- to 24-Year-Olds: All Persons (thousands) | 18- to 24-Year-Olds: Enrolled-in-College Rate (percent) | High School Graduates: Number Completed (thousands) | High School Graduates: Completion Rates (percent) | High School Graduates: Number Enrolled in College (thousands) | High School Graduates: Enrolled-in-College Rate (percent) | 14- to 24-Year-Olds: Ever-Enrolled-in-College Rate (percent) |
|---|---|---|---|---|---|---|---|
| **ALL RACES** | | | | | | | |
| 1972 | 24,579 | 25.5 | 19,618 | 79.8 | 6,257 | 31.9 | 52.9 |
| 1973 | 25,237 | 24.0 | 20,377 | 80.7 | 6,055 | 29.7 | 50.7 |
| 1974 | 25,670 | 24.6 | 20,725 | 80.7 | 6,316 | 30.5 | 51.3 |
| 1975 | 26,387 | 26.3 | 21,326 | 80.8 | 6,935 | 32.5 | 52.5 |
| 1976 | 26,919 | 26.7 | 21,677 | 80.5 | 7,181 | 33.1 | 53.4 |
| 1977 | 27,331 | 26.1 | 22,008 | 80.5 | 7,142 | 32.5 | 52.0 |
| 1978 | 27,647 | 25.3 | 22,309 | 80.7 | 6,995 | 31.4 | 51.4 |
| 1979 | 27,974 | 25.0 | 22,421 | 80.1 | 6,991 | 31.2 | 51.6 |
| 1980 | 28,957 | 25.6 | 23,413 | 80.9 | 7,400 | 31.6 | 51.1 |
| 1981 | 28,965 | 26.2 | 23,343 | 80.6 | 7,575 | 32.5 | 51.7 |
| 1982 | 28,846 | 26.6 | 23,291 | 80.7 | 7,678 | 33.0 | 52.7 |
| 1983 | 28,580 | 26.2 | 22,988 | 80.4 | 7,477 | 32.5 | 52.8 |
| 1984 | 28,031 | 27.1 | 22,870 | 81.6 | 7,591 | 33.2 | 53.0 |
| 1985 | 27,122 | 27.8 | 22,349 | 82.4 | 7,537 | 33.7 | 54.3 |
| 1986 | 26,512 | 28.2 | 21,768 | 82.1 | 7,477 | 34.3 | 55.0 |
| 1987 | 25,950 | 29.6 | 21,118 | 81.4 | 7,693 | 36.4 | 56.5 |
| 1988 | 25,733 | 30.3 | 20,900 | 81.2 | 7,791 | 37.3 | 57.5 |
| 1989 | 25,261 | 30.9 | 20,461 | 81.0 | 7,804 | 38.1 | 57.9 |
| 1990 | 24,852 | 32.0 | 20,311 | 82.3 | 7,964 | 39.1 | 58.9 |
| 1991 | 24,572 | 33.3 | 19,883 | 80.9 | 8,172 | 41.1 | 60.7 |
| 1992 | 24,278 | 34.4 | 19,921 | 82.1 | 8,343 | 41.9 | 65.6 |
| **WHITE** | | | | | | | |
| 1972 | 21,315 | 26.4 | 17,410 | 81.7 | 5,624 | 32.3 | 53.9 |
| 1973 | 21,766 | 25.0 | 18,023 | 82.8 | 5,438 | 30.2 | 51.6 |
| 1974 | 22,141 | 25.2 | 18,318 | 82.7 | 5,589 | 30.5 | 51.7 |
| 1975 | 22,703 | 26.9 | 18,883 | 83.2 | 6,116 | 32.4 | 52.7 |
| 1976 | 23,119 | 27.1 | 19,045 | 82.4 | 6,276 | 33.0 | 53.5 |
| 1977 | 23,430 | 26.5 | 19,291 | 82.3 | 6,209 | 32.2 | 52.1 |
| 1978 | 23,650 | 25.7 | 19,526 | 82.6 | 6,077 | 31.1 | 51.3 |
| 1979 | 23,895 | 25.6 | 19,616 | 82.1 | 6,120 | 31.2 | 51.7 |
| 1980 | 24,482 | 26.2 | 20,214 | 82.6 | 6,423 | 31.8 | 51.4 |
| 1981 | 24,486 | 26.7 | 20,123 | 82.2 | 6,549 | 32.5 | 52.1 |
| 1982 | 24,206 | 27.2 | 19,944 | 82.4 | 6,694 | 33.1 | 53.1 |
| 1983 | 23,899 | 27.0 | 19,643 | 82.2 | 6,463 | 32.9 | 53.4 |
| 1984 | 23,347 | 28.0 | 19,373 | 83.0 | 6,256 | 33.7 | 53.8 |
| 1985 | 22,632 | 28.7 | 18,916 | 83.6 | 6,500 | 34.4 | 55.3 |
| 1986 | 22,020 | 28.6 | 18,291 | 83.1 | 6,307 | 34.5 | 55.5 |
| 1987 | 21,493 | 30.2 | 17,689 | 82.3 | 6,483 | 36.6 | 57.1 |
| 1988 | 21,261 | 31.3 | 17,491 | 82.3 | 6,659 | 38.1 | 58.6 |
| 1989 | 20,825 | 31.8 | 17,089 | 82.1 | 6,631 | 38.8 | 58.9 |
| 1990 | 20,393 | 32.5 | 16,823 | 82.5 | 6,635 | 39.4 | 60.1 |
| 1991 | 19,980 | 34.1 | 16,324 | 81.7 | 6,813 | 41.7 | 62.3 |
| 1992 | 19,671 | 35.2 | 16,379 | 83.3 | 6,916 | 42.2 | 67.0 |

*Continued on next page*

**Source:** U.S. Department of Commerce, Bureau of the Census, *Current Population Reports, School Enrollment—Social and Economic Characteristics of Students: October 1993*, Series P-20, No. 474.

**Note:** College participation rates were calculated using the total population and high school graduates as the bases. The ever-enrolled-in-college participation rate includes 14- to 24-year-olds who either were enrolled in college or had completed one or more years of college. The high school completion rates were calculated using the total population as the base. Thus, in 1972, 79.8 percent of the total population 18 to 24 years old had earned a high school diploma or a high school equivalency certificate or were enrolled in college. Data for 1980 and later use 1980 census-based estimates. Data for 1986 and later use a revised tabulation system. Improvements in edits and population estimation procedures caused slight changes in estimates for 1986.

**Table 1 - *Continued***

**High School Completion Rates and College Participation Rates by Race/Ethnicity, 1972 to 1992**

| Year | 18- to 24-Year-Olds: All Persons (thousands) | 18- to 24-Year-Olds: Enrolled-in-College Rate (percent) | High School Graduates: Number Completed (thousands) | High School Graduates: Completion Rates (percent) | High School Graduates: Number Enrolled in College (thousands) | High School Graduates: Enrolled-in-College Rate (percent) | 14- to 24-Year-Olds: Ever-Enrolled-in-College Rate (percent) |
|---|---|---|---|---|---|---|---|
| **AFRICAN AMERICAN** | | | | | | | |
| 1972 | 2,986 | 18.1 | 1,992 | 66.7 | 540 | 27.1 | 42.0 |
| 1973 | 3,114 | 16.0 | 2,079 | 66.8 | 498 | 24.0 | 41.6 |
| 1974 | 3,105 | 17.9 | 2,083 | 67.1 | 555 | 26.6 | 44.8 |
| 1975 | 3,213 | 20.7 | 2,081 | 64.8 | 665 | 32.0 | 48.1 |
| 1976 | 3,315 | 22.6 | 2,239 | 67.5 | 749 | 33.5 | 50.4 |
| 1977 | 3,387 | 21.3 | 2,286 | 67.5 | 721 | 31.5 | 46.9 |
| 1978 | 3,452 | 20.1 | 2,340 | 67.8 | 694 | 29.7 | 47.8 |
| 1979 | 3,510 | 19.8 | 2,356 | 67.1 | 696 | 29.5 | 48.4 |
| 1980 | 3,721 | 19.2 | 2,592 | 69.7 | 715 | 27.6 | 45.9 |
| 1981 | 3,778 | 19.9 | 2,678 | 70.9 | 750 | 28.0 | 44.8 |
| 1982 | 3,872 | 19.8 | 2,744 | 70.9 | 767 | 28.0 | 45.5 |
| 1983 | 3,865 | 19.2 | 2,740 | 70.9 | 741 | 27.0 | 45.0 |
| 1984 | 3,862 | 20.4 | 2,885 | 74.7 | 786 | 27.2 | 45.2 |
| 1985 | 3,716 | 19.8 | 2,810 | 75.6 | 734 | 26.1 | 43.8 |
| 1986 | 3,653 | 22.2 | 2,795 | 76.5 | 812 | 29.1 | 47.8 |
| 1987 | 3,603 | 22.8 | 2,739 | 76.0 | 823 | 30.0 | 48.7 |
| 1988 | 3,568 | 21.1 | 2,680 | 75.1 | 752 | 28.1 | 46.6 |
| 1989 | 3,559 | 23.5 | 2,708 | 76.1 | 835 | 30.8 | 49.1 |
| 1990 | 3,520 | 25.4 | 2,710 | 77.0 | 894 | 33.0 | 48.0 |
| 1991 | 3,504 | 23.6 | 2,630 | 75.1 | 828 | 31.5 | 46.0 |
| 1992 | 3,521 | 25.3 | 2,625 | 74.6 | 886 | 33.8 | 53.3 |
| **HISPANIC**[a] | | | | | | | |
| 1972 | 1,338 | 13.4 | 694 | 51.9 | 179 | 25.8 | 36.7 |
| 1973 | 1,285 | 16.0 | 709 | 55.2 | 206 | 29.1 | 43.0 |
| 1974 | 1,506 | 18.1 | 842 | 55.9 | 272 | 32.3 | 47.8 |
| 1975 | 1,446 | 20.4 | 832 | 57.5 | 295 | 35.5 | 50.8 |
| 1976 | 1,551 | 19.9 | 862 | 55.6 | 309 | 35.8 | 48.9 |
| 1977 | 1,609 | 17.2 | 880 | 54.7 | 277 | 31.5 | 43.8 |
| 1978 | 1,672 | 15.2 | 935 | 55.9 | 254 | 27.2 | 43.2 |
| 1979 | 1,754 | 16.6 | 968 | 55.2 | 292 | 30.2 | 45.7 |
| 1980 | 2,033 | 16.1 | 1,099 | 54.1 | 327 | 29.8 | 47.3 |
| 1981 | 2,052 | 16.7 | 1,144 | 55.8 | 342 | 29.9 | 45.8 |
| 1982 | 2,001 | 16.8 | 1,153 | 57.6 | 337 | 29.2 | 47.3 |
| 1983 | 2,025 | 17.2 | 1,110 | 54.8 | 349 | 31.4 | 48.4 |
| 1984 | 2,018 | 17.9 | 1,212 | 60.1 | 362 | 29.9 | 46.0 |
| 1985 | 2,221 | 16.9 | 1,396 | 62.9 | 375 | 26.9 | 46.7 |
| 1986 | 2,514 | 18.2 | 1,507 | 59.9 | 458 | 30.4 | 45.6 |
| 1987 | 2,592 | 17.6 | 1,597 | 61.6 | 455 | 28.5 | 44.2 |
| 1988 | 2,642 | 17.0 | 1,458 | 55.2 | 450 | 30.9 | 47.1 |
| 1989 | 2,818 | 16.1 | 1,576 | 55.9 | 453 | 28.7 | 43.6 |
| 1990 | 2,749 | 15.8 | 1,498 | 54.5 | 435 | 29.0 | 44.7 |
| 1991 | 2,874 | 18.0 | 1,498 | 52.1 | 516 | 34.4 | 47.6 |
| 1992 | 2,754 | 21.3 | 1,578 | 57.3 | 586 | 37.1 | 55.0 |

[a] Hispanics may be of any race.

## Table 2

# High School Completion Rates and College Participation Rates by Race/Ethnicity and Sex, 1972 to 1992

| Year | 18- to 24-Year-Olds: All Persons (thousands) | 18- to 24-Year-Olds: Enrolled-in-College Rate (percent) | High School Graduates: Number Completed (thousands) | High School Graduates: Completion Rates (percent) | High School Graduates: Number Enrolled in College (thousands) | High School Graduates: Enrolled-in-College Rate (percent) | 14- to 24-Year-Olds: Ever-Enrolled-in-College Rate (percent) |
|---|---|---|---|---|---|---|---|
| **ALL RACES** | | | | | | | |
| MEN | | | | | | | |
| 1972 | 11,712 | 30.2 | 9,247 | 79.0 | 3,534 | 38.2 | 59.0 |
| 1973 | 12,111 | 27.7 | 9,716 | 80.2 | 3,360 | 34.6 | 55.4 |
| 1974 | 12,315 | 27.7 | 9,835 | 79.9 | 3,411 | 34.7 | 55.6 |
| 1975 | 12,724 | 29.0 | 10,214 | 80.3 | 3,693 | 36.2 | 56.1 |
| 1976 | 13,012 | 28.2 | 10,312 | 79.2 | 3,673 | 35.6 | 55.7 |
| 1977 | 13,218 | 28.1 | 10,440 | 79.0 | 3,712 | 35.6 | 54.2 |
| 1978 | 13,385 | 27.1 | 10,614 | 79.3 | 3,621 | 34.1 | 52.6 |
| 1979 | 13,571 | 25.8 | 10,657 | 78.5 | 3,508 | 32.9 | 52.4 |
| 1980 | 14,107 | 26.3 | 11,125 | 78.9 | 3,717 | 33.4 | 51.4 |
| 1981 | 14,127 | 27.1 | 11,052 | 78.2 | 3,833 | 34.7 | 52.1 |
| 1982 | 14,083 | 27.2 | 11,120 | 79.0 | 3,837 | 34.5 | 53.0 |
| 1983 | 14,003 | 27.3 | 10,906 | 77.9 | 3,820 | 35.0 | 52.7 |
| 1984 | 13,744 | 28.6 | 10,914 | 79.4 | 3,929 | 36.0 | 53.6 |
| 1985 | 13,199 | 28.4 | 10,614 | 80.4 | 3,749 | 35.3 | 54.6 |
| 1986 | 12,921 | 28.7 | 10,338 | 80.0 | 3,702 | 35.8 | 54.4 |
| 1987 | 12,626 | 30.6 | 10,030 | 79.4 | 3,867 | 38.6 | 56.3 |
| 1988 | 12,491 | 30.2 | 9,832 | 78.7 | 3,770 | 38.3 | 56.6 |
| 1989 | 12,325 | 30.2 | 9,700 | 78.7 | 3,717 | 38.3 | 57.2 |
| 1990 | 12,134 | 32.3 | 9,778 | 80.6 | 3,922 | 40.1 | 58.0 |
| 1991 | 12,036 | 32.9 | 9,493 | 78.9 | 3,954 | 41.7 | 59.2 |
| 1992 | 11,965 | 32.7 | 9,576 | 80.0 | 3,912 | 40.9 | 64.1 |
| WOMEN | | | | | | | |
| 1972 | 12,867 | 21.2 | 10,371 | 80.6 | 2,724 | 26.3 | 47.4 |
| 1973 | 13,126 | 20.5 | 10,663 | 81.2 | 2,696 | 25.3 | 46.5 |
| 1974 | 13,355 | 21.8 | 10,889 | 81.5 | 2,905 | 26.7 | 47.5 |
| 1975 | 13,663 | 23.7 | 11,113 | 81.3 | 3,243 | 29.2 | 49.2 |
| 1976 | 13,907 | 25.2 | 11,365 | 81.7 | 3,508 | 30.9 | 51.4 |
| 1977 | 14,113 | 24.3 | 11,569 | 82.0 | 3,431 | 29.7 | 50.0 |
| 1978 | 14,262 | 23.7 | 11,694 | 82.0 | 3,373 | 28.8 | 50.3 |
| 1979 | 14,403 | 24.2 | 11,763 | 81.7 | 3,482 | 29.6 | 50.8 |
| 1980 | 14,851 | 24.8 | 12,287 | 82.7 | 3,682 | 30.0 | 50.8 |
| 1981 | 14,838 | 25.2 | 12,280 | 82.8 | 3,741 | 30.4 | 51.3 |
| 1982 | 14,763 | 26.0 | 12,171 | 82.4 | 3,841 | 31.6 | 52.4 |
| 1983 | 14,577 | 25.1 | 12,082 | 82.9 | 3,657 | 30.3 | 52.8 |
| 1984 | 14,287 | 25.6 | 11,956 | 83.7 | 3,662 | 30.6 | 52.4 |
| 1985 | 13,923 | 27.2 | 11,736 | 84.3 | 3,788 | 32.3 | 54.0 |
| 1986 | 13,591 | 27.8 | 11,430 | 84.1 | 3,775 | 33.0 | 55.5 |
| 1987 | 13,324 | 28.7 | 11,086 | 83.2 | 3,826 | 34.5 | 56.7 |
| 1988 | 13,242 | 30.4 | 11,068 | 83.6 | 4,021 | 36.3 | 58.3 |
| 1989 | 12,936 | 31.6 | 10,758 | 83.2 | 4,085 | 38.0 | 58.6 |
| 1990 | 12,718 | 31.8 | 10,533 | 82.8 | 4,042 | 38.4 | 59.8 |
| 1991 | 12,536 | 33.6 | 10,391 | 82.9 | 4,218 | 41.0 | 62.1 |
| 1992 | 12,313 | 36.0 | 10,344 | 84.0 | 4,429 | 42.8 | 66.9 |

*Continued on next page*

**Source:** U.S. Department of Commerce, Bureau of the Census, *Current Population Reports, School Enrollment—Social and Economic Characteristics of Students*, October 1993, Series P-20, No. 474.

**Note:** The number of high school graduates was calculated by adding the number of individuals in this age group enrolled in college as of October of that year and the number of high school graduates not enrolled in college; these figures include individuals who enrolled in college without receiving a high school diploma or a GED. Data for 1980 and later use 1980 census-based estimates. Data for 1986 and later use a revised tabulation system. Improvements in edits and population estimation procedures caused slight changes in the estimates for 1986.

**Table 2 - *Continued***

**High School Completion Rates and College Participation Rates by Race/Ethnicity and Sex, 1972 to 1992**

| | 18- to 24-Year-Olds | | | | | | 14- to 24-Year-Olds |
|---|---|---|---|---|---|---|---|
| | | | High School Graduates | | | | |
| Year | All Persons (thousands) | Enrolled-in-College Rate (percent) | Number Completed (thousands) | Completion Rates (percent) | Number Enrolled in College (thousands) | Enrolled-in-College Rate (percent) | Ever-Enrolled-in-College Rate (percent) |
| **WHITE** | | | | | | | |
| MEN | | | | | | | |
| 1972 | 10,212 | 31.3 | 8,278 | 81.1 | 3,195 | 38.6 | 60.1 |
| 1973 | 10,511 | 28.8 | 8,637 | 82.2 | 3,032 | 35.1 | 56.5 |
| 1974 | 10,722 | 28.3 | 8,768 | 81.8 | 3,035 | 34.6 | 55.9 |
| 1975 | 11,050 | 30.1 | 9,139 | 82.7 | 3,326 | 36.4 | 56.6 |
| 1976 | 11,279 | 28.8 | 9,186 | 81.4 | 3,250 | 35.4 | 55.9 |
| 1977 | 11,445 | 28.7 | 9,263 | 80.9 | 3,286 | 35.5 | 54.5 |
| 1978 | 11,572 | 27.6 | 9,438 | 81.6 | 3,195 | 33.9 | 52.5 |
| 1979 | 11,721 | 26.5 | 9,457 | 80.7 | 3,104 | 32.8 | 52.7 |
| 1980 | 12,011 | 27.3 | 9,686 | 80.6 | 3,275 | 33.8 | 51.8 |
| 1981 | 12,040 | 27.7 | 9,619 | 79.9 | 3,340 | 34.7 | 52.8 |
| 1982 | 11,874 | 27.9 | 9,611 | 80.9 | 3,308 | 34.4 | 53.2 |
| 1983 | 11,787 | 28.3 | 9,411 | 79.8 | 3,335 | 35.4 | 53.5 |
| 1984 | 11,521 | 29.6 | 9,348 | 81.1 | 3,406 | 36.4 | 54.2 |
| 1985 | 11,108 | 29.3 | 9,077 | 81.7 | 3,254 | 35.8 | 55.5 |
| 1986 | 10,814 | 29.3 | 8,780 | 81.2 | 3,168 | 36.1 | 55.1 |
| 1987 | 10,549 | 31.2 | 8,498 | 80.6 | 3,289 | 38.7 | 56.7 |
| 1988 | 10,380 | 31.4 | 8,268 | 79.7 | 3,260 | 39.4 | 57.9 |
| 1989 | 10,240 | 31.5 | 8,177 | 79.9 | 3,223 | 39.4 | 56.5 |
| 1990 | 10,053 | 32.7 | 8,157 | 81.1 | 3,292 | 40.3 | 58.7 |
| 1991 | 9,896 | 33.0 | 7,843 | 79.3 | 3,270 | 41.9 | 59.9 |
| 1992 | 9,744 | 33.8 | 7,911 | 81.2 | 3,291 | 41.6 | 65.8 |
| WOMEN | | | | | | | |
| 1972 | 11,103 | 21.9 | 9,132 | 82.2 | 2,428 | 25.6 | 48.3 |
| 1973 | 11,255 | 21.4 | 9,387 | 83.4 | 2,406 | 25.6 | 47.1 |
| 1974 | 11,419 | 22.4 | 9,551 | 83.6 | 2,555 | 26.8 | 47.8 |
| 1975 | 11,653 | 23.9 | 9,743 | 83.6 | 2,790 | 28.6 | 49.1 |
| 1976 | 11,840 | 25.6 | 9,860 | 83.3 | 3,026 | 30.7 | 51.3 |
| 1977 | 11,985 | 24.4 | 10,029 | 83.7 | 2,923 | 29.1 | 50.0 |
| 1978 | 12,078 | 23.9 | 10,088 | 83.5 | 2,882 | 28.6 | 50.3 |
| 1979 | 12,174 | 24.8 | 10,157 | 83.4 | 3,015 | 29.7 | 50.8 |
| 1980 | 12,471 | 25.2 | 10,528 | 84.4 | 3,147 | 29.9 | 50.9 |
| 1981 | 12,446 | 25.8 | 10,504 | 84.4 | 3,208 | 30.5 | 51.6 |
| 1982 | 12,332 | 26.6 | 10,333 | 83.8 | 3,285 | 31.8 | 52.9 |
| 1983 | 12,112 | 25.8 | 10,233 | 84.5 | 3,129 | 30.6 | 53.4 |
| 1984 | 11,826 | 26.4 | 10,026 | 84.8 | 3,120 | 31.1 | 53.4 |
| 1985 | 11,524 | 28.2 | 9,840 | 85.4 | 3,247 | 33.0 | 55.2 |
| 1986 | 11,205 | 28.0 | 9,509 | 84.9 | 3,139 | 33.0 | 55.8 |
| 1987 | 10,944 | 29.2 | 9,189 | 84.0 | 3,192 | 34.7 | 57.5 |
| 1988 | 10,881 | 31.2 | 9,223 | 84.8 | 3,399 | 36.9 | 59.2 |
| 1989 | 10,586 | 32.2 | 8,913 | 84.2 | 3,409 | 38.2 | 59.2 |
| 1990 | 10,340 | 32.3 | 8,666 | 83.8 | 3,344 | 38.6 | 61.4 |
| 1991 | 10,119 | 35.0 | 8,481 | 83.8 | 3,544 | 42.1 | 64.5 |
| 1992 | 9,928 | 36.5 | 8,468 | 85.3 | 3,625 | 42.8 | 66.1 |

Continued on next page

**Table 2 - *Continued***

**High School Completion Rates and College Participation Rates by Race/Ethnicity and Sex, 1972 to 1992**

| Year | 18- to 24-Year-Olds: All Persons (thousands) | 18- to 24-Year-Olds: Enrolled-in-College Rate (percent) | High School Graduates: Number Completed (thousands) | High School Graduates: Completion Rates (percent) | High School Graduates: Number Enrolled in College (thousands) | High School Graduates: Enrolled-in-College Rate (percent) | 14- to 24-Year-Olds: Ever-Enrolled-in-College Rate (percent) |
|---|---|---|---|---|---|---|---|
| **AFRICAN AMERICAN** | | | | | | | |
| MEN | | | | | | | |
| 1972 | 1,373 | 20.9 | 870 | 63.4 | 287 | 33.0 | 47.4 |
| 1973 | 1,434 | 18.5 | 952 | 66.4 | 266 | 27.9 | 44.2 |
| 1974 | 1,396 | 20.1 | 919 | 65.8 | 280 | 30.5 | 47.3 |
| 1975 | 1,451 | 20.3 | 897 | 61.8 | 294 | 32.8 | 50.5 |
| 1976 | 1,503 | 22.0 | 936 | 62.3 | 331 | 35.4 | 50.3 |
| 1977 | 1,528 | 20.2 | 970 | 63.5 | 309 | 31.9 | 47.6 |
| 1978 | 1,554 | 19.6 | 956 | 61.5 | 305 | 31.9 | 49.3 |
| 1979 | 1,577 | 19.3 | 973 | 61.7 | 304 | 31.2 | 46.7 |
| 1980 | 1,690 | 17.3 | 1,115 | 66.0 | 293 | 26.3 | 44.1 |
| 1981 | 1,730 | 18.8 | 1,154 | 66.7 | 325 | 28.2 | 42.3 |
| 1982 | 1,786 | 18.5 | 1,171 | 65.6 | 331 | 28.3 | 44.5 |
| 1983 | 1,807 | 18.3 | 1,202 | 66.5 | 331 | 27.5 | 43.6 |
| 1984 | 1,811 | 20.3 | 1,272 | 70.2 | 367 | 28.9 | 45.2 |
| 1985 | 1,720 | 20.1 | 1,244 | 72.3 | 345 | 27.7 | 43.6 |
| 1986 | 1,687 | 20.7 | 1,220 | 72.3 | 349 | 28.6 | 44.4 |
| 1987 | 1,666 | 22.6 | 1,188 | 71.3 | 377 | 31.7 | 48.3 |
| 1988 | 1,653 | 18.0 | 1,189 | 71.9 | 297 | 25.0 | 42.8 |
| 1989 | 1,654 | 19.6 | 1,195 | 72.2 | 324 | 27.1 | 45.8 |
| 1990 | 1,634 | 26.1 | 1,240 | 75.9 | 426 | 34.4 | 48.9 |
| 1991 | 1,635 | 23.1 | 1,174 | 71.8 | 378 | 32.2 | 47.3 |
| 1992 | 1,676 | 21.2 | 1,211 | 72.3 | 356 | 29.7 | 49.4 |
| WOMEN | | | | | | | |
| 1972 | 1,613 | 15.7 | 1,123 | 69.6 | 253 | 22.5 | 37.9 |
| 1973 | 1,681 | 13.7 | 1,125 | 66.9 | 231 | 20.5 | 39.4 |
| 1974 | 1,709 | 16.2 | 1,167 | 68.3 | 277 | 23.7 | 42.9 |
| 1975 | 1,761 | 21.1 | 1,182 | 67.1 | 372 | 31.5 | 46.4 |
| 1976 | 1,813 | 23.0 | 1,302 | 71.8 | 417 | 32.0 | 50.3 |
| 1977 | 1,859 | 22.2 | 1,317 | 70.8 | 413 | 31.4 | 46.2 |
| 1978 | 1,897 | 20.6 | 1,384 | 73.0 | 390 | 28.2 | 46.7 |
| 1979 | 1,934 | 20.3 | 1,383 | 71.5 | 392 | 28.3 | 49.8 |
| 1980 | 2,031 | 20.8 | 1,475 | 72.6 | 422 | 28.6 | 47.4 |
| 1981 | 2,049 | 20.7 | 1,526 | 74.5 | 424 | 27.8 | 46.6 |
| 1982 | 2,086 | 20.9 | 1,572 | 75.4 | 436 | 27.7 | 46.3 |
| 1983 | 2,058 | 20.0 | 1,539 | 74.8 | 411 | 26.7 | 46.3 |
| 1984 | 2,052 | 20.4 | 1,613 | 78.6 | 419 | 26.0 | 45.1 |
| 1985 | 1,996 | 19.5 | 1,565 | 78.4 | 389 | 24.9 | 44.0 |
| 1986 | 1,966 | 23.5 | 1,576 | 80.1 | 462 | 29.4 | 50.4 |
| 1987 | 1,937 | 23.0 | 1,550 | 80.0 | 445 | 28.7 | 48.9 |
| 1988 | 1,915 | 23.8 | 1,492 | 77.9 | 455 | 30.5 | 49.6 |
| 1989 | 1,905 | 26.8 | 1,511 | 79.3 | 511 | 33.8 | 51.8 |
| 1990 | 1,886 | 24.8 | 1,468 | 77.8 | 467 | 31.8 | 47.3 |
| 1991 | 1,869 | 24.1 | 1,455 | 77.8 | 460 | 30.9 | 45.2 |
| 1992 | 1,845 | 26.8 | 1,417 | 76.8 | 531 | 37.5 | 56.6 |

*Continued on next page*

**Table 2 - *Continued***

**High School Completion Rates and College Participation Rates by Race/Ethnicity and Sex, 1972 to 1992**

| Year | 18- to 24-Year-Olds: All Persons (thousands) | 18- to 24-Year-Olds: Enrolled-in-College Rate (percent) | High School Graduates: Number Completed (thousands) | High School Graduates: Completion Rates (percent) | High School Graduates: Number Enrolled in College (thousands) | High School Graduates: Enrolled-in-College Rate (percent) | 14- to 24-Year-Olds: Ever-Enrolled-in-College Rate (percent) |
|---|---|---|---|---|---|---|---|
| **HISPANIC**[a] | | | | | | | |
| MEN | | | | | | | |
| 1972 | 609 | 15.1 | 301 | 49.4 | 92 | 30.6 | 44.3 |
| 1973 | 625 | 16.8 | 348 | 55.7 | 105 | 30.2 | 45.4 |
| 1974 | 720 | 19.6 | 390 | 54.2 | 141 | 36.2 | 51.4 |
| 1975 | 678 | 21.4 | 383 | 56.5 | 145 | 37.9 | 55.4 |
| 1976 | 701 | 21.4 | 378 | 53.9 | 150 | 39.7 | 51.8 |
| 1977 | 754 | 18.4 | 396 | 52.5 | 139 | 35.1 | 46.5 |
| 1978 | 781 | 16.1 | 420 | 53.8 | 126 | 30.0 | 46.3 |
| 1979 | 837 | 18.3 | 454 | 54.2 | 153 | 33.7 | 49.5 |
| 1980 | 1,012 | 15.8 | 518 | 51.2 | 160 | 30.9 | 49.5 |
| 1981 | 988 | 16.6 | 498 | 50.4 | 164 | 32.9 | 48.6 |
| 1982 | 944 | 14.9 | 519 | 55.0 | 141 | 27.2 | 44.8 |
| 1983 | 968 | 15.7 | 476 | 49.2 | 152 | 31.9 | 47.4 |
| 1984 | 956 | 16.1 | 549 | 57.4 | 154 | 28.1 | 45.7 |
| 1985 | 1,132 | 14.8 | 659 | 58.2 | 168 | 25.5 | 44.9 |
| 1986 | 1,339 | 17.4 | 769 | 57.4 | 233 | 30.3 | 44.4 |
| 1987 | 1,337 | 18.5 | 795 | 59.5 | 247 | 31.1 | 45.1 |
| 1988 | 1,375 | 16.6 | 724 | 52.7 | 228 | 31.5 | 48.4 |
| 1989 | 1,439 | 14.7 | 756 | 52.5 | 211 | 27.9 | 42.7 |
| 1990 | 1,403 | 15.3 | 753 | 53.7 | 214 | 28.4 | 46.5 |
| 1991 | 1,503 | 14.0 | 719 | 47.8 | 211 | 29.3 | 42.2 |
| 1992 | 1,384 | 17.8 | 720 | 52.0 | 247 | 34.3 | 52.2 |
| WOMEN | | | | | | | |
| 1972 | 728 | 12.1 | 394 | 54.1 | 88 | 22.3 | 31.1 |
| 1973 | 658 | 15.5 | 362 | 55.0 | 102 | 28.2 | 41.1 |
| 1974 | 786 | 16.4 | 451 | 57.4 | 129 | 28.6 | 43.4 |
| 1975 | 769 | 19.5 | 449 | 58.4 | 150 | 33.4 | 46.7 |
| 1976 | 850 | 18.8 | 483 | 56.8 | 160 | 33.1 | 46.5 |
| 1977 | 855 | 16.3 | 483 | 56.5 | 139 | 28.8 | 41.6 |
| 1978 | 891 | 14.4 | 516 | 57.9 | 128 | 24.8 | 40.0 |
| 1979 | 917 | 15.3 | 516 | 56.3 | 140 | 27.1 | 42.3 |
| 1980 | 1,021 | 16.2 | 579 | 56.7 | 165 | 28.5 | 45.4 |
| 1981 | 1,064 | 16.7 | 646 | 60.7 | 178 | 27.6 | 43.4 |
| 1982 | 1,056 | 18.6 | 634 | 60.0 | 196 | 30.9 | 49.2 |
| 1983 | 1,057 | 18.7 | 634 | 60.0 | 198 | 31.2 | 49.7 |
| 1984 | 1,061 | 19.5 | 661 | 62.3 | 207 | 31.3 | 46.6 |
| 1985 | 1,091 | 18.8 | 734 | 67.3 | 205 | 27.9 | 48.0 |
| 1986 | 1,175 | 19.2 | 739 | 62.9 | 226 | 30.6 | 46.8 |
| 1987 | 1,256 | 16.6 | 801 | 63.8 | 208 | 26.0 | 43.2 |
| 1988 | 1,267 | 17.7 | 736 | 58.1 | 224 | 30.4 | 46.0 |
| 1989 | 1,377 | 17.7 | 823 | 59.8 | 244 | 29.6 | 44.5 |
| 1990 | 1,346 | 16.4 | 745 | 55.3 | 221 | 29.7 | 43.0 |
| 1991 | 1,372 | 22.2 | 780 | 56.9 | 305 | 39.1 | 52.4 |
| 1992 | 1,369 | 24.8 | 860 | 62.8 | 339 | 39.4 | 57.4 |

[a] Hispanics may be of any race.

## Table 3
# Total Enrollment in Higher Education by Type of Institution and Race/Ethnicity: Selected Years, Fall 1982 to 1992

(Numbers in Thousands)

| | 1982 | 1984 | 1986 | 1988 | 1990 | 1991 | 1992 | Percent Change 1982–92 | Percent Change 1991–92 |
|---|---|---|---|---|---|---|---|---|---|
| ALL INSTITUTIONS | 12,388 | 12,235 | 12,504 | 13,043 | 13,820 | 14,359 | 14,491 | 17.0 | 0.9 |
| White (non-Hispanic) | 9,997 | 9,815 | 9,921 | 10,283 | 10,723 | 10,990 | 10,870 | 8.7 | 1.1 |
| Total Minority | 2,059 | 2,085 | 2,238 | 2,400 | 2,706 | 2,953 | 3,163 | 53.6 | 7.1 |
| African American (non-Hispanic) | 1,101 | 1,076 | 1,082 | 1,130 | 1,247 | 1,335 | 1,393 | 26.5 | 4.3 |
| Hispanic | 519 | 535 | 618 | 680 | 783 | 867 | 954 | 83.8 | 10.0 |
| Asian American[a] | 351 | 390 | 448 | 497 | 573 | 637 | 697 | 98.6 | 9.4 |
| American Indian[b] | 88 | 84 | 90 | 93 | 103 | 114 | 119 | 35.2 | 4.4 |
| Nonresident Alien | 331 | 335 | 345 | 361 | 391 | 416 | 458 | 38.4 | 10.1 |
| FOUR-YEAR INSTITUTIONS | 7,648 | 7,708 | 7,824 | 8,175 | 8,579 | 8,707 | 8,768 | 14.6 | 0.7 |
| White (non-Hispanic) | 6,306 | 6,301 | 6,337 | 6,582 | 6,769 | 6,791 | 6,747 | 7.0 | 0.6 |
| Total Minority | 1,073 | 1,124 | 1,195 | 1,292 | 1,486 | 1,573 | 1,664 | 55.1 | 5.8 |
| African American (non-Hispanic) | 612 | 617 | 615 | 656 | 723 | 758 | 791 | 29.2 | 4.4 |
| Hispanic | 229 | 246 | 278 | 296 | 358 | 383 | 410 | 79.0 | 7.0 |
| Asian American[a] | 193 | 223 | 262 | 297 | 357 | 381 | 408 | 111.4 | 7.1 |
| American Indian[b] | 39 | 38 | 40 | 42 | 48 | 51 | 55 | 41.0 | 7.8 |
| Nonresident Alien | 270 | 282 | 292 | 302 | 324 | 343 | 357 | 32.2 | 4.1 |
| TWO-YEAR INSTITUTIONS | 4,740 | 4,527 | 4,680 | 4,868 | 5,240 | 5,652 | 5,723 | 20.7 | 1.3 |
| White (non-Hispanic) | 3,692 | 3,514 | 3,584 | 3,702 | 3,954 | 4,199 | 4,123 | 11.7 | 1.8 |
| Total Minority | 987 | 961 | 1,043 | 1,107 | 1,218 | 1,381 | 1,500 | 52.0 | 8.6 |
| African American (non-Hispanic) | 489 | 459 | 467 | 473 | 524 | 578 | 602 | 23.1 | 4.2 |
| Hispanic | 291 | 289 | 340 | 384 | 424 | 484 | 545 | 87.3 | 12.6 |
| Asian American[a] | 158 | 167 | 186 | 199 | 215 | 256 | 289 | 82.9 | 12.9 |
| American Indian[b] | 49 | 46 | 51 | 50 | 55 | 63 | 64 | 30.6 | 1.6 |
| Nonresident Alien | 61 | 53 | 53 | 60 | 67 | 74 | 100 | 63.9 | 35.1 |

**Source:** U.S. Department of Education, National Center for Education Statistics, *Trends in Enrollment in Higher Education by Racial/Ethnic Category: Fall 1982 through Fall 1992*. Washington, DC: U.S. Department of Education, January 1994.

**Note:** Because of underreporting/nonreporting of racial/ethnic data, data prior to 1986 were estimated when possible. Also, due to rounding, detail may not add to totals. Data for fall 1991 have been revised from previously published figures. For fall 1991, the response rate was 90.9 percent for institutions of higher education, while in fall 1992, the response rate for institutions of higher education was 94.3 percent. Imputed enrollment data (for nonresponding institutions and cases with incomplete data) accounted for 2.9 percent of the enrollment data for all institutions, 0.7 percent for public four-year institutions. The proportion of imputed data in independent four-year institutions was 2.9 percent and 8.5 percent in independent two-year institutions.

[a] Asian American includes Pacific Islanders.

[b] American Indian includes Alaskan Natives.

## Table 4

# Total Enrollment in Higher Education by Control of Institution, Race/Ethnicity, and Sex: Selected Years, Fall 1982 to 1992

(Numbers in Thousands)

| | 1982 | 1984 | 1986 | 1988 | 1990 | 1991 | 1992 | Percent Change 1982–92 | Percent Change 1991–92 |
|---|---|---|---|---|---|---|---|---|---|
| MEN | 5,999 | 5,859 | 5,885 | 5,998 | 6,284 | 6,502 | 6,526 | 8.8 | 0.4 |
| White (non-Hispanic) | 4,830 | 4,690 | 4,647 | 4,712 | 4,861 | 4,962 | 4,882 | 1.1 | -1.6 |
| Total Minority | 939 | 939 | 1,004 | 1,051 | 1,177 | 1,281 | 1,365 | 45.4 | 6.6 |
| African American (non-Hispanic) | 456 | 437 | 436 | 443 | 485 | 517 | 537 | 17.2 | 3.9 |
| Hispanic | 252 | 254 | 290 | 310 | 354 | 391 | 427 | 69.4 | 9.2 |
| Asian American[a] | 189 | 210 | 239 | 259 | 295 | 325 | 351 | 85.7 | 8.0 |
| American Indian[b] | 40 | 38 | 39 | 39 | 43 | 48 | 50 | 25.0 | 4.2 |
| Nonresident Alien | 230 | 231 | 233 | 235 | 246 | 259 | 278 | 20.9 | 7.3 |
| WOMEN | 6,389 | 6,376 | 6,619 | 7,045 | 7,535 | 7,857 | 7,965 | 24.7 | 1.4 |
| White (non-Hispanic) | 5,167 | 5,125 | 5,273 | 5,572 | 5,862 | 6,028 | 5,988 | 15.9 | -0.7 |
| Total Minority | 1,121 | 1,146 | 1,234 | 1,347 | 1,529 | 1,672 | 1,797 | 60.3 | 7.5 |
| African American (non-Hispanic) | 644 | 639 | 646 | 687 | 762 | 818 | 856 | 32.9 | 4.6 |
| Hispanic | 267 | 281 | 328 | 370 | 429 | 476 | 527 | 97.4 | 10.7 |
| Asian American[a] | 162 | 180 | 209 | 237 | 278 | 312 | 345 | 113.0 | 10.6 |
| American Indian[b] | 48 | 46 | 51 | 53 | 60 | 66 | 69 | 43.8 | 4.5 |
| Nonresident Alien | 101 | 104 | 112 | 126 | 145 | 157 | 180 | 78.2 | 14.6 |
| PUBLIC | 9,695 | 9,458 | 9,714 | 10,156 | 10,845 | 11,310 | 11,388 | 17.5 | 0.7 |
| White (non-Hispanic) | 7,785 | 7,543 | 7,654 | 7,964 | 8,385 | 8,622 | 8,487 | 9.0 | -1.6 |
| Total Minority | 1,692 | 1,695 | 1,836 | 1,955 | 2,198 | 2,411 | 2,592 | 53.2 | 7.5 |
| African American (non-Hispanic) | 873 | 844 | 854 | 881 | 976 | 1,053 | 1,101 | 26.1 | 4.6 |
| Hispanic | 446 | 456 | 532 | 587 | 671 | 742 | 822 | 84.3 | 10.8 |
| Asian American[a] | 296 | 323 | 371 | 406 | 461 | 516 | 566 | 91.2 | 9.7 |
| American Indian[b] | 77 | 72 | 79 | 81 | 90 | 100 | 103 | 33.8 | 3.0 |
| Nonresident Alien | 219 | 219 | 224 | 238 | 260 | 275 | 309 | 41.1 | 12.4 |
| INDEPENDENT | 2,693 | 2,777 | 2,790 | 2,887 | 2,975 | 3,049 | 3,104 | 15.3 | 1.8 |
| White (non-Hispanic) | 2,212 | 2,272 | 2,267 | 2,319 | 2,338 | 2,368 | 2,383 | 7.7 | 0.6 |
| Total Minority | 367 | 389 | 402 | 443 | 506 | 542 | 572 | 55.9 | 5.5 |
| African American (non-Hispanic) | 228 | 232 | 228 | 248 | 271 | 282 | 292 | 28.1 | 3.5 |
| Hispanic | 74 | 79 | 86 | 93 | 111 | 125 | 133 | 79.7 | 6.4 |
| Asian American[a] | 55 | 67 | 77 | 91 | 112 | 121 | 131 | 138.2 | 8.3 |
| American Indian[b] | 10 | 11 | 11 | 11 | 12 | 14 | 16 | 60.0 | 14.3 |
| Nonresident Alien | 113 | 116 | 120 | 123 | 131 | 141 | 148 | 31.0 | 5.0 |

**Source:** U.S. Department of Education, National Center for Education Statistics, *Trends in Enrollment in Higher Education by Racial/Ethnic Category: Fall 1982 through Fall 1992*. Washington, DC: U.S. Department of Education, January 1994.

**Note** Because of underreporting/nonreporting of racial/ethnic data, data prior to 1986 were estimated when possible. Also, due to rounding, detail may not add to totals. Data for fall 1991 have been revised from previously published figures. For fall 1991, the response rate was 90.9 percent for institutions of higher education, while in fall 1992, the response rate for institutions of higher education was 94.3 percent. Imputed enrollment data (for nonresponding institutions and cases with incomplete data) accounted for 2.9 percent of the enrollment data for all institutions, 0.7 percent for public four-year institutions. The proportion of imputed data in independent four-year institutions was 2.9 percent and 8.5 percent in independent two-year institutions.

[a] Asian American includes Pacific Islanders.

[b] American Indian includes Alaskan Natives.





BEST COPY AVAILABLE

## Table 5

# Undergraduate, Graduate, and Professional School Enrollment in Higher Education by Race/Ethnicity: Selected Years, Fall 1982 to 1992

(Numbers in Thousands)

| | 1982 | 1984 | 1986 | 1988 | 1990 | 1991 | 1992 | Percent Change 1982–92 | Percent Change 1991–92 |
|---|---|---|---|---|---|---|---|---|---|
| UNDERGRADUATE TOTAL | 10,875 | 10,610 | 10,798 | 11,304 | 11,959 | 12,439 | 12,540 | 15.3 | 0.8 |
| White (non-Hispanic) | 8,749 | 8,484 | 8,558 | 8,907 | 9,273 | 9,508 | 9,381 | 7.2 | -1.3 |
| Total Minority | 1,907 | 1,911 | 2,036 | 2,192 | 2,468 | 2,698 | 2,891 | 51.6 | 7.2 |
| African American (non-Hispanic) | 1,028 | 995 | 996 | 1,039 | 1,147 | 1,229 | 1,281 | 24.6 | 4.2 |
| Hispanic | 485 | 495 | 563 | 631 | 725 | 804 | 887 | 82.9 | 10.3 |
| Asian American[a] | 313 | 343 | 393 | 437 | 501 | 559 | 613 | 95.8 | 9.7 |
| American Indian[b] | 82 | 78 | 83 | 86 | 95 | 106 | 111 | 34.1 | 3.8 |
| Nonresident Alien | 220 | 216 | 205 | 205 | 219 | 234 | 268 | 21.8 | 14.5 |
| GRADUATE TOTAL | 1,235 | 1,344 | 1,435 | 1,472 | 1,586 | 1,639 | 1,670 | 35.2 | 1.9 |
| White (non-Hispanic) | 1,002 | 1,087 | 1,133 | 1,153 | 1,228 | 1,258 | 1,268 | 26.5 | 0.8 |
| Total Minority | 123 | 141 | 167 | 167 | 190 | 205 | 218 | 77.2 | 6.3 |
| African American (non-Hispanic) | 61 | 67 | 72 | 76 | 84 | 89 | 94 | 54.1 | 5.6 |
| Hispanic | 27 | 32 | 46 | 39 | 47 | 51 | 55 | 103.7 | 7.8 |
| Asian American[a] | 30 | 37 | 43 | 46 | 53 | 58 | 62 | 106.7 | 6.9 |
| American Indian[b] | 5 | 5 | 5 | 6 | 6 | 7 | 7 | 40.0 | 0.0 |
| Nonresident Alien | 108 | 115 | 136 | 151 | 167 | 177 | 184 | 70.4 | 4.0 |
| PROFESSIONAL SCHOOL TOTAL | 278 | 278 | 270 | 267 | 274 | 281 | 281 | 1.1 | 0.0 |
| White (non-Hispanic) | 246 | 243 | 231 | 223 | 222 | 224 | 221 | -10.2 | -1.3 |
| Total Minority | 29 | 32 | 36 | 39 | 47 | 50 | 54 | 86.2 | 8.0 |
| African American (non-Hispanic) | 13 | 13 | 14 | 14 | 16 | 17 | 18 | 38.5 | 5.9 |
| Hispanic | 7 | 8 | 9 | 9 | 11 | 11 | 12 | 71.4 | 9.1 |
| Asian American[a] | 8 | 9 | 11 | 14 | 19 | 21 | 23 | 187.5 | 9.5 |
| American Indian[b] | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.0 | 0.0 |
| Nonresident Alien | 3 | 3 | 4 | 5 | 5 | 6 | 6 | 100.0 | 0.0 |

**Source:** U.S. Department of Education, National Center for Education Statistics, *Trends in Enrollment in Higher Education by Racial /Ethnic Category: Fall 1982 through Fall 1992*. Washington, DC: U.S. Department of Education, January 1994.

**Note** Because of underreporting/nonreporting of racial/ethnic data, data prior to 1986 were estimated when possible. Also, due to rounding, detail may not add to totals. Data for fall 1991 have been revised from previously published figures. For fall 1992, the response rate was 90.9 percent for institutions of higher education, while in fall 1990, the response rate for institutions of higher education was 94.3 percent.

[a] Asian American includes Pacific Islanders.

[b] American Indian includes Alaskan Natives.

## Table 6
## Enrollment at Historically Black Colleges and Universities by Race/Ethnicity: Selected Years Fall 1982 to 1992

| | 1982 | 1984 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | Percent Change 1991–92 |
|---|---|---|---|---|---|---|---|---|---|---|
| Number of HBCUs[a] | 100 | 104 | 104 | 104 | 106 | 104 | 104 | 102 | 107 | |
| Total Enrollment | 216,570 | 216,050 | 213,114 | 217,670 | 230,758 | 238,946 | 248,697 | 258,509 | 277,261 | 7.3 |
| African American (non-Hispanic) | 177,000 | 175,110 | 176,610 | 182,020 | 192,848 | 199,974 | 207,547 | 213,904 | 224,946 | 5.2 |
| White (non-Hispanic) | 23,040 | 23,450 | 22,784 | 23,227 | 25,767 | 26,962 | 29,601 | 31,085 | 36,203 | 16.5 |
| Asian American[b] | 1,050 | 1,350 | 1,207 | 1,187 | 1,473 | 1,568 | 1,724 | 2,009 | 2,151 | 7.1 |
| Hispanic | 1,070 | 1,560 | 1,486 | 1,590 | 1,746 | 1,859 | 1,797 | 2,131 | 4,755 | 123.1 |
| American Indian[c] | 570 | 240 | 482 | 449 | 254 | 307 | 338 | 388 | 447 | 15.2 |
| Nonresident Alien | 13,840 | 14,340 | 10,545 | 8,897 | 8,671 | 8,273 | 7,690 | 7,489 | 7,360 | 1.7 |

**Sources:** Hill, Susan T. *The Traditionally Black Institutions of Higher Education, 1860 to 1982*. Washington, DC: Government Printing Office, 1984. National Association for Equal Opportunity Research Institute staff analysis of the U.S. Department of Education, Office for Civil Rights unpublished data, fall 1984–1992.

**Note:** Details may not add to total because of rounding. Data for 14 institutions were imputed from NAFEO's *Annual Fall 1991 Enrollment Survey*. The total number of HBCUs in 1992 was 107, of which 102 are members of NAFEO. The fall 1991 enrollment data include only the 102 NAFEO member HBCUs, while the fall 1992 enrollment data include all 107 HBCUs.

[a] These figures represent the number of institutions reporting their enrollment each year.

[b] Asian American includes Pacific Islanders.

[c] American Indian includes Alaskan Natives.

## Table 7
## African American Enrollment at Historically Black Colleges and Universities by Control of Institution and Sex, Fall 1986 to 1992

| | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | Percent Change 1991–92 |
|---|---|---|---|---|---|---|---|---|
| NUMBER OF HBCUs | 104 | 104 | 106 | 104 | 104 | 102 | 107 | |
| ALL HBCUs | 176,610 | 182,020 | 192,848 | 199,974 | 207,547 | 213,904 | 224,946 | 5.2 |
| Men | 73,495 | 74,447 | 77,741 | 79,462 | 82,587 | 85,713 | 90,831 | 6.0 |
| Women | 103,115 | 107,573 | 115,107 | 120,512 | 124,960 | 128,191 | 134,115 | 4.6 |
| PUBLIC HBCUs | 120,930 | 124,749 | 132,067 | 137,190 | 143,763 | 150,707 | 156,623 | 3.9 |
| Men | 50,592 | 51,177 | 53,206 | 54,400 | 57,070 | 60,147 | 63,389 | 5.4 |
| Women | 70,338 | 73,572 | 78,861 | 82,790 | 86,693 | 90,560 | 93,234 | 3.0 |
| INDEPENDENT HBCUs | 55,680 | 57,271 | 60,781 | 62,784 | 63,784 | 63,197 | 68,323 | 8.1 |
| Men | 22,903 | 23,270 | 24,535 | 25,062 | 25,517 | 25,566 | 27,442 | 7.3 |
| Women | 32,777 | 34,001 | 36,246 | 37,722 | 38,267 | 37,631 | 40,881 | 8.6 |

**Source:** National Association for Equal Opportunity in Higher Education Research Institute. *Annual Fall Enrollment Survey: 1986-1992*.

**Note:** Details may not add to total because of rounding. Data for 14 institutions were imputed from NAFEO's *Annual Fall 1991 Enrollment Survey*. The total number of HBCUs in 1992 was 107, of which 102 are members of NAFEO. The fall 1991 enrollment data include only the 102 NAFEO member HBCUs, while the fall 1992 enrollment data include all 107 HBCUs.

## Table 8
# Associate Degrees by Race/Ethnicity and Sex for Selected Years, 1981–1991

| | 1981 | | 1985 | | 1989 | | 1990 | | 1991 | | Percent Change | Percent Change |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total | Percent | Total | Percent | Total | Percent | Total | Percent | Total | Percent | 1981–91 | 1990–91 |
| Total | 410,174 | 100.0 | 429,815 | 100.0 | 432,144 | 100.0 | 450,263 | 100.0 | 462,030 | 100.0 | 12.6 | 2.6 |
| Men[a] | 183,819 | 44.8 | 190,409 | 44.3 | 183,963 | 42.6 | 188,631 | 41.9 | 190,221 | 41.2 | 3.5 | 0.8 |
| Women[b] | 226,355 | 55.2 | 239,406 | 55.7 | 248,181 | 57.4 | 261,632 | 58.1 | 271,809 | 58.8 | 20.1 | 3.9 |
| White (non-Hispanic)[c] | 339,167 | 82.7 | 355,343 | 82.7 | 354,813 | 82.1 | 369,546 | 82.1 | 376,069 | 81.4 | 10.9 | 1.8 |
| Men[d] | 151,242 | 82.3 | 157,278 | 82.6 | 150,950 | 82.1 | 154,719 | 82.0 | 155,320 | 81.7 | 2.7 | 0.4 |
| Women[e] | 187,925 | 83.0 | 198,065 | 82.7 | 203,863 | 82.1 | 214,827 | 82.1 | 220,749 | 81.2 | 17.5 | 2.8 |
| Minority | 64,364 | 15.7 | 68,065 | 15.8 | 64,624 | 15.0 | 74,565 | 16.6 | 79,318 | 17.2 | 23.2 | 6.4 |
| Men | 28,282 | 15.4 | 29,435 | 15.5 | 23,480 | 12.8 | 30,942 | 16.4 | 31,651 | 16.6 | 12.3 | 2.3 |
| Women | 36,082 | 15.9 | 38,630 | 16.1 | 41,144 | 16.6 | 43,623 | 16.7 | 47,567 | 17.5 | 31.8 | 9.0 |
| African American (non-Hispanic) | 35,330 | 8.6 | 35,799 | 8.3 | 34,722 | 8.0 | 35,341 | 7.8 | 37,659 | 8.2 | 6.6 | 6.6 |
| Men | 14,290 | 7.8 | 14,192 | 7.5 | 12,913 | 7.0 | 13,161 | 7.0 | 13,720 | 7.2 | -4.0 | 4.2 |
| Women | 21,040 | 9.3 | 21,607 | 9.0 | 21,809 | 8.8 | 22,180 | 8.5 | 23,939 | 8.8 | 13.8 | 7.9 |
| Hispanic | 17,800 | 4.3 | 19,407 | 4.5 | 20,381 | 4.7 | 22,216 | 4.9 | 24,255 | 5.2 | 36.3 | 9.2 |
| Men | 8,327 | 4.5 | 8,561 | 4.5 | 9,212 | 5.0 | 9,869 | 5.2 | 10,213 | 5.4 | 22.6 | 3.5 |
| Women | 9,473 | 4.2 | 10,846 | 4.5 | 11,169 | 4.5 | 12,347 | 4.7 | 14,042 | 5.2 | 48.2 | 13.7 |
| Asian American[f] | 8,650 | 2.1 | 9,914 | 2.3 | 12,531 | 2.9 | 13,478 | 3.0 | 13,729 | 3.0 | 58.7 | 1.9 |
| Men | 4,557 | 2.5 | 5,492 | 2.9 | 6,375 | 3.5 | 6,478 | 3.4 | 6,444 | 3.4 | 41.4 | -0.5 |
| Women | 4,093 | 1.8 | 4,422 | 1.8 | 6,156 | 2.5 | 7,000 | 2.7 | 7,285 | 2.7 | 78.0 | 4.1 |
| American Indian[g] | 2,584 | 0.6 | 2,953 | 0.7 | 3,335 | 0.8 | 3,530 | 0.8 | 3,675 | 0.8 | 42.2 | 4.1 |
| Men | 1,108 | 0.6 | 1,198 | 0.6 | 1,325 | 0.7 | 1,434 | 0.8 | 1,374 | 0.7 | 24.0 | -4.2 |
| Women | 1,476 | 0.7 | 1,755 | 0.7 | 2,010 | 0.8 | 2,096 | 0.8 | 2,301 | 0.8 | 55.9 | 9.8 |
| Nonresident Alien | 6,643 | 1.6 | 6,407 | 1.5 | 6,362 | 1.5 | 6,152 | 1.4 | 6,643 | 1.4 | 0.0 | 8.0 |
| Men | 4,295 | 2.3 | 3,696 | 1.9 | 3,188 | 1.7 | 2,970 | 1.6 | 3,150 | 1.7 | -26.7 | 6.1 |
| Women | 2,348 | 1.0 | 2,711 | 1.1 | 3,174 | 1.3 | 3,182 | 1.2 | 3,493 | 1.3 | 48.8 | 9.8 |

**Source:** U.S. Department of Education, National Center for Education Statistics. *Digest of Education Statistics*. Washington, DC: Office of Educational Research and Improvement, 1993.

**Note:** As of academic year 1989, degrees conferred by race/ethnicity were released annually instead of biannually. Data for academic year 1990 have been revised from previously published figures.

[a] Degrees awarded to men as a percentage of all associate degrees awarded that year.

[b] Degrees awarded to women as a percentage of all associate degrees awarded that year.

[c] Degrees awarded to this group as a percentage of all associate degrees awarded that year.

[d] Degrees awarded to men in this group as a percentage of all associate degrees awarded to men that year.

[e] Degrees awarded to women in this group as a percentage of all associate degrees awarded to women that year.

[f] Asian American includes Pacific Islanders.

[g] American Indian includes Alaskan Natives.

## Table 9
# Bachelor's Degrees by Race/Ethnicity and Sex for Selected Years, 1981–1991

| | 1981 | | 1985 | | 1989 | | 1990 | | 1991 | | Percent Change | Percent Change |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total | Percent | Total | Percent | Total | Percent | Total | Percent | Total | Percent | 1981–91 | 1990–91 |
| Total | 934,800 | 100.0 | 968,311 | 100.0 | 1,016,350 | 100.0 | 1,048,631 | 100.0 | 1,081,280 | 100.0 | 15.7 | 3.1 |
| Men[a] | 469,625 | 50.2 | 476,148 | 49.2 | 481,946 | 47.4 | 490,317 | 46.8 | 496,424 | 45.9 | 5.7 | 1.2 |
| Women[b] | 465,175 | 49.8 | 492,163 | 50.8 | 534,404 | 52.6 | 558,314 | 53.2 | 584,856 | 54.1 | 25.7 | 4.8 |
| White (non-Hispanic)[c] | 807,319 | 86.4 | 826,106 | 85.3 | 859,699 | 84.6 | 884,372 | 84.3 | 904,061 | 83.6 | 12.0 | 2.2 |
| Men[d] | 406,173 | 86.5 | 405,085 | 85.1 | 407,142 | 84.5 | 413,571 | 84.3 | 415,506 | 83.7 | 2.3 | 0.5 |
| Women[e] | 401,146 | 86.2 | 421,021 | 85.5 | 452,557 | 84.7 | 470,801 | 84.3 | 488,555 | 83.5 | 21.8 | 3.8 |
| Minority | 104,892 | 11.2 | 112,988 | 11.7 | 129,615 | 12.8 | 137,551 | 13.1 | 148,085 | 13.7 | 41.2 | 7.7 |
| Men | 47,128 | 10.0 | 50,972 | 10.7 | 57,312 | 11.9 | 59,785 | 12.2 | 63,065 | 12.7 | 33.8 | 5.5 |
| Women | 57,764 | 12.4 | 62,106 | 12.6 | 72,303 | 13.5 | 77,766 | 13.9 | 85,020 | 14.5 | 47.2 | 9.3 |
| African American (non-Hispanic) | 60,673 | 6.5 | 57,473 | 5.9 | 58,065 | 5.7 | 61,065 | 5.8 | 65,338 | 6.0 | 7.7 | 7.0 |
| Men | 24,511 | 5.2 | 23,018 | 4.8 | 22,363 | 4.6 | 23,264 | 4.7 | 24,326 | 4.9 | -0.8 | 4.6 |
| Women | 36,162 | 7.8 | 34,455 | 7.0 | 35,702 | 6.7 | 37,801 | 6.8 | 41,012 | 7.0 | 13.4 | 8.5 |
| Hispanic | 21,832 | 2.3 | 25,874 | 2.7 | 29,910 | 2.9 | 32,846 | 3.1 | 36,612 | 3.4 | 67.7 | 11.5 |
| Men | 10,810 | 2.3 | 12,402 | 2.6 | 13,947 | 2.9 | 14,941 | 3.0 | 16,157 | 3.3 | 49.5 | 8.1 |
| Women | 11,022 | 2.4 | 13,472 | 2.7 | 15,963 | 3.0 | 17,905 | 3.2 | 20,455 | 3.5 | 85.6 | 14.2 |
| Asian American[f] | 18,794 | 2.0 | 25,395 | 2.6 | 37,686 | 3.7 | 39,247 | 3.7 | 41,622 | 3.8 | 121.5 | 6.1 |
| Men | 10,107 | 2.2 | 13,554 | 2.8 | 19,271 | 4.0 | 19,719 | 4.0 | 20,681 | 4.2 | 104.6 | 4.9 |
| Women | 8,687 | 1.9 | 11,841 | 2.4 | 18,415 | 3.4 | 19,528 | 3.5 | 20,941 | 3.6 | 141.1 | 7.2 |
| American Indian[g] | 3,593 | 0.4 | 4,246 | 0.4 | 3,954 | 0.4 | 4,393 | 0.4 | 4,513 | 0.4 | 25.6 | 2.7 |
| Men | 1,700 | 0.4 | 1,998 | 0.4 | 1,731 | 0.4 | 1,861 | 0.4 | 1,901 | 0.4 | 11.8 | 2.1 |
| Women | 1,893 | 0.4 | 2,248 | 0.5 | 2,223 | 0.4 | 2,532 | 0.5 | 2,612 | 0.4 | 38.0 | 3.2 |
| Nonresident Alien | 22,589 | 2.4 | 29,217 | 3.0 | 27,036 | 2.7 | 26,708 | 2.5 | 29,134 | 2.7 | 29.0 | 9.1 |
| Men | 16,324 | 3.5 | 20,091 | 4.2 | 17,492 | 3.6 | 16,961 | 3.5 | 17,853 | 3.6 | 9.4 | 5.3 |
| Women | 6,265 | 1.3 | 9,126 | 1.9 | 9,544 | 1.8 | 9,747 | 1.7 | 11,281 | 1.9 | 80.1 | 15.7 |

**Source:** U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics* (Washington, DC: Office of Educational Research and Improvement, 1993).

**Note:** As of academic year 1989, degrees conferred by race/ethnicity were released annually instead of biannually. Data for academic year 1990 have been revised from previously published figures.

[a] Degrees awarded to men as a percentage of all bachelor's degrees awarded that year.

[b] Degrees awarded to women as a percentage of all bachelor's degrees awarded that year.

[c] Degrees awarded to this group as a percentage of all bachelor's degrees awarded that year.

[d] Degrees awarded to men in this group as a percentage of all bachelor's degrees awarded to men that year.

[e] Degrees awarded to women in this group as a percentage of all bachelor's degrees awarded to women that year.

[f] Asian American includes Pacific Islanders.

[g] American Indian includes Alaskan Natives.

## Table 10
# Master's Degrees by Race/Ethnicity and Sex for Selected Years, 1981–1991

| | 1981 | | 1985 | | 1989 | | 1990 | | 1991 | | Percent Change 1981–91 | Percent Change 1990–91 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total | Percent | Total | Percent | Total | Percent | Total | Percent | Total | Percent | | |
| Total | 294,183 | 100.0 | 280,421 | 100.0 | 289,341 | 100.0 | 322,465 | 100.0 | 328,645 | 100.0 | 11.7 | 1.9 |
| Men[a] | 145,666 | 49.5 | 139,417 | 49.7 | 141,264 | 48.8 | 152,926 | 47.4 | 151,796 | 46.2 | 4.2 | -0.7 |
| Women[b] | 148,517 | 50.5 | 141,004 | 50.3 | 148,077 | 51.2 | 169,539 | 52.6 | 176,849 | 53.8 | 19.1 | 4.3 |
| White (non-Hispanic)[c] | 241,216 | 82.0 | 223,628 | 79.7 | 228,870 | 79.1 | 251,689 | 78.1 | 255,286 | 77.7 | 5.8 | 1.4 |
| Men[d] | 115,562 | 79.3 | 106,059 | 76.1 | 105,573 | 74.7 | 112,879 | 73.8 | 111,228 | 73.3 | -3.8 | -1.5 |
| Women[e] | 125,654 | 84.6 | 117,569 | 83.4 | 123,297 | 83.3 | 138,810 | 81.9 | 144,058 | 81.5 | 14.6 | 3.8 |
| Minority | 30,910 | 10.5 | 29,841 | 10.6 | 30,573 | 10.6 | 35,077 | 10.9 | 36,834 | 11.2 | 19.2 | 5.0 |
| Men | 13,517 | 9.3 | 13,684 | 9.8 | 14,236 | 10.1 | 15,590 | 10.2 | 16,152 | 10.6 | 19.5 | 3.6 |
| Women | 17,393 | 11.7 | 16,157 | 11.5 | 16,337 | 11.0 | 19,487 | 11.5 | 20,682 | 11.7 | 18.9 | 6.1 |
| African American (non-Hispanic) | 17,133 | 5.8 | 13,939 | 5.0 | 13,867 | 4.8 | 15,446 | 4.8 | 16,136 | 4.9 | -5.8 | 4.5 |
| Men | 6,158 | 4.2 | 5,200 | 3.7 | 5,151 | 3.6 | 5,539 | 3.6 | 5,707 | 3.8 | -7.3 | 3.0 |
| Women | 10,975 | 7.4 | 8,739 | 6.2 | 8,716 | 5.9 | 9,907 | 5.8 | 10,429 | 5.9 | -5.0 | 5.3 |
| Hispanic | 6,461 | 2.2 | 6,864 | 2.4 | 7,044 | 2.4 | 7,954 | 2.5 | 8,382 | 2.6 | 29.7 | 5.4 |
| Men | 3,085 | 2.1 | 3,059 | 2.2 | 3,330 | 2.4 | 3,588 | 2.3 | 3,667 | 2.4 | 18.9 | 2.2 |
| Women | 3,376 | 2.3 | 3,805 | 2.7 | 3,714 | 2.5 | 4,366 | 2.6 | 4,715 | 2.7 | 39.7 | 8.0 |
| Asian American[f] | 6,282 | 2.1 | 7,782 | 2.8 | 8,558 | 3.0 | 10,578 | 3.3 | 11,180 | 3.4 | 78.0 | 5.7 |
| Men | 3,773 | 2.6 | 4,842 | 3.5 | 5,238 | 3.7 | 6,002 | 3.9 | 6,319 | 4.2 | 67.5 | 5.3 |
| Women | 2,509 | 1.7 | 2,940 | 2.1 | 3,320 | 2.2 | 4,576 | 2.7 | 4,861 | 2.7 | 93.7 | 6.2 |
| American Indian[g] | 1,034 | 0.4 | 1,256 | 0.4 | 1,104 | 0.4 | 1,099 | 0.3 | 1,136 | 0.3 | 9.9 | 3.4 |
| Men | 501 | 0.3 | 583 | 0.4 | 517 | 0.4 | 461 | 0.3 | 459 | 0.3 | -8.4 | -0.4 |
| Women | 533 | 0.4 | 673 | 0.5 | 587 | 0.4 | 638 | 0.4 | 677 | 0.4 | 27.0 | 6.1 |
| Nonresident Alien | 22,057 | 7.5 | 26,952 | 9.6 | 29,898 | 10.3 | 35,699 | 11.1 | 36,525 | 11.1 | 65.6 | 2.3 |
| Men | 16,587 | 11.4 | 19,674 | 14.1 | 21,456 | 15.2 | 24,457 | 16.0 | 24,416 | 16.1 | 47.2 | -0.2 |
| Women | 5,470 | 3.7 | 7,278 | 5.2 | 8,443 | 5.7 | 11,242 | 6.6 | 12,109 | 6.8 | 121.4 | 7.7 |

**Source:** U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics*. Washington, DC: Office of Educational Research and Improvement, 1993.

**Note:** As of academic year 1989, degrees conferred by race/ethnicity were released annually instead of biannually. Data for academic year 1990 have been revised from previously published figures.

[a] Degrees awarded to men as a percentage of all master's degrees awarded that year.

[b] Degrees awarded to women as a percentage of all master's degrees awarded that year.

[c] Degrees awarded to this group as a percentage of all master's degrees awarded that year.

[d] Degrees awarded to men in this group as a percentage of all master's degrees awarded to men that year.

[e] Degrees awarded to women in this group as a percentage of all master's degrees awarded to women that year.

[f] Asian American includes Pacific Islanders.

[g] American Indian includes Alaskan Natives.

## Table 11
# First Professional Degrees by Race/Ethnicity and Sex for Selected Years, 1981–1991

| | 1981 | | 1985 | | 1989 | | 1990 | | 1991 | | Percent Change | Percent Change |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total | Percent | Total | Percent | Total | Percent | Total | Percent | Total | Percent | 1981–91 | 1990–91 |
| Total | 71,340 | 100.0 | 71,057 | 100.0 | 70,736 | 100.0 | 70,744 | 100.0 | 71,515 | 100.0 | 0.2 | 1.1 |
| Men[a] | 52,194 | 73.2 | 47,501 | 66.8 | 45,046 | 63.6 | 43,778 | 61.8 | 43,601 | 61.0 | -16.5 | -0.4 |
| Women[b] | 19,146 | 26.8 | 23,556 | 33.2 | 25,810 | 36.4 | 26,966 | 38.1 | 27,914 | 39.0 | 45.8 | 3.5 |
| White (non-Hispanic)[c] | 64,551 | 90.5 | 63,219 | 89.0 | 61,214 | 86.4 | 60,240 | 85.2 | 60,327 | 84.4 | -6.5 | 0.1 |
| Men[d] | 47,629 | 91.3 | 42,630 | 89.7 | 39,399 | 87.5 | 37,850 | 86.5 | 37,348 | 85.7 | -21.6 | -1.3 |
| Women[e] | 16,922 | 88.4 | 20,589 | 87.4 | 21,815 | 84.5 | 22,390 | 83.0 | 22,979 | 82.3 | 35.8 | 2.6 |
| Minority | 6,120 | 8.6 | 6,977 | 9.8 | 8,590 | 12.1 | 9,456 | 13.4 | 10,118 | 14.1 | 65.3 | 7.0 |
| Men | 4,028 | 7.7 | 4,190 | 8.8 | 4,935 | 11.0 | 5,220 | 11.9 | 5,500 | 12.6 | 36.5 | 5.4 |
| Women | 2,092 | 10.9 | 2,787 | 11.8 | 3,655 | 14.2 | 4,236 | 15.7 | 4,618 | 16.5 | 120.7 | 9.0 |
| African American (non-Hispanic) | 2,931 | 4.1 | 3,029 | 4.3 | 3,148 | 4.4 | 3,410 | 4.8 | 3,575 | 5.0 | 22.0 | 4.8 |
| Men | 1,772 | 3.4 | 1,623 | 3.4 | 1,618 | 3.6 | 1,672 | 3.8 | 1,672 | 3.8 | -5.6 | 0.0 |
| Women | 1,159 | 6.1 | 1,406 | 6.0 | 1,530 | 5.9 | 1,738 | 6.4 | 1,903 | 6.8 | 64.2 | 9.5 |
| Hispanic | 1,541 | 2.2 | 1,884 | 2.7 | 2,269 | 3.2 | 2,427 | 3.4 | 2,527 | 3.5 | 64.0 | 4.1 |
| Men | 1,131 | 2.2 | 1,239 | 2.6 | 1,374 | 3.1 | 1,450 | 3.3 | 1,506 | 3.5 | 33.2 | 3.9 |
| Women | 410 | 2.1 | 645 | 2.7 | 895 | 3.5 | 977 | 3.6 | 1,021 | 3.7 | 149.0 | 4.5 |
| Asian American[f] | 1,456 | 2.0 | 1,816 | 2.6 | 2,976 | 4.2 | 3,362 | 4.8 | 3,755 | 5.3 | 157.9 | 11.7 |
| Men | 991 | 1.9 | 1,152 | 2.4 | 1,819 | 4.0 | 1,963 | 4.5 | 2,178 | 5.0 | 119.8 | 11.0 |
| Women | 465 | 2.4 | 664 | 2.8 | 1,157 | 4.5 | 1,399 | 5.2 | 1,577 | 5.6 | 239.1 | 12.7 |
| American Indian[g] | 192 | 0.3 | 248 | 0.3 | 264 | 0.4 | 257 | 0.4 | 261 | 0.4 | 35.9 | 1.6 |
| Men | 134 | 0.3 | 176 | 0.4 | 148 | 0.3 | 135 | 0.3 | 144 | 0.3 | 7.5 | 6.7 |
| Women | 58 | 0.3 | 72 | 0.3 | 116 | 0.5 | 122 | 0.5 | 117 | 0.4 | 101.7 | -4.1 |
| Nonresident Alien | 669 | 0.9 | 861 | 1.2 | 985 | 1.4 | 1,048 | 1.5 | 1,070 | 1.5 | 59.9 | 2.1 |
| Men | 537 | 1.0 | 681 | 1.4 | 688 | 1.5 | 708 | 1.6 | 753 | 1.7 | 40.2 | 6.4 |
| Women | 132 | 0.7 | 180 | 0.8 | 297 | 1.2 | 340 | 1.3 | 317 | 1.1 | 140.2 | -6.8 |

**Source:** U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics*. Washington, DC: Office of Educational Research and Improvement, 1993.

**Note:** As of academic year 1989, degrees conferred by race/ethnicity were released annually instead of biannually. Data for academic year 1990 have been revised from previously published figures.

[a] Degrees awarded to men as a percentage of all first professional degrees awarded that year.

[b] Degrees awarded to women as a percentage of all first professional degrees awarded that year.

[c] Degrees awarded to this group as a percentage of all first professional degrees awarded that year.

[d] Degrees awarded to men in this group as a percentage of all first professional degrees awarded to men that year.

[e] Degrees awarded to women in this group as a percentage of all first professional degrees awarded to women that year.

[f] Asian American includes Pacific Islanders.

[g] American Indian includes Alaskan Natives.

## Table 12
# Degrees Conferred by Historically Black Colleges and Universities by Race/Ethnicity and Level, 1980–81 through 1990–91

### ASSOCIATE DEGREES

| | Number of Degrees Conferred | | | | | | | Degrees from Historically Black Colleges and Universities as a Percent of Total Associate Degrees | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | Total | White (non-Hispanic) | African American | Hispanic | Asian American | American Indian | Non-Resident Alien | Total | White (non-Hispanic | African American | Hispanic | Asian American | American Indian | Non-Resident Alien |
| 1980–81 | 2,635 | 707 | 1,703 | 155 | 6 | 3 | 61 | 0.6 | 0.2 | 4.8 | 0.9 | 0.1 | 0.1 | 0.9 |
| 1982–83 | 2,482 | 795 | 1,442 | 132 | 12 | 2 | 99 | — | — | — | — | — | — | — |
| 1984–85 | 2,691 | 880 | 1,547 | 162 | 26 | 5 | 71 | 0.6 | 0.2 | 4.3 | 0.8 | 0.3 | 0.2 | 1.1 |
| 1986–87 | 2,612 | 796 | 1,571 | 174 | 26 | 9 | 36 | 0.6 | 0.2 | 4.4 | 0.9 | 0.2 | 0.3 | 0.8 |
| 1988–89 | 2,526 | 825 | 1,487 | 134 | 17 | 3 | 60 | 0.6 | 0.2 | 4.3 | 0.7 | 0.1 | 0.1 | 0.9 |
| 1989–90 | 2,489 | 793 | 1,477 | 153 | 11 | 13 | 42 | 0.6 | 0.2 | 4.2 | 0.7 | 0.1 | 0.4 | 0.7 |
| 1990–91 | 2,540 | 830 | 1,373 | 132 | 19 | 0 | 92 | 0.5 | 0.2 | 3.8 | 0.6 | 0.1 | 0.0 | 1.5 |

### BACHELOR'S DEGREES

| | Number of Degrees Conferred | | | | | | | Degrees from Historically Black Colleges and Universities as a Percent of Bachelor's Degrees | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1980–81 | 22,922 | 1,532 | 19,556 | 84 | 109 | 18 | 1,623 | 2.5 | 0.2 | 32.2 | 0.4 | 0.6 | 0.5 | 7.2 |
| 1982–83 | 22,205 | 1,487 | 17,787 | 108 | 74 | 33 | 2,716 | — | — | — | — | — | — | — |
| 1984–85 | 20,887 | 1,870 | 16,326 | 218 | 321 | 46 | 2,106 | 2.2 | 0.2 | 28.4 | 0.8 | 1.3 | 1.1 | 7.2 |
| 1986–87 | 20,270 | 1,819 | 16,589 | 121 | 135 | 54 | 1,552 | 2.0 | 0.2 | 29.3 | 0.4 | 0.4 | 1.4 | 5.3 |
| 1988–89 | 19,518 | 2,016 | 16,162 | 92 | 113 | 33 | 1,102 | 1.9 | 0.2 | 27.8 | 0.3 | 0.3 | 0.8 | 4.1 |
| 1989–90 | 19,734 | 2,212 | 16,325 | 111 | 176 | 19 | 891 | 1.9 | 0.3 | 26.7 | 0.3 | 0.5 | 0.4 | 3.3 |
| 1990–91 | 21,511 | 2,270 | 17,069 | 105 | 142 | 27 | 819 | 2.0 | 0.3 | 27.1 | 0.3 | 0.4 | 0.7 | 2.9 |

### MASTER'S DEGREES

| | Number of Degrees Conferred | | | | | | | Degrees from Historically Black Colleges and Universities as a Percent of Master's Degrees | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1980–81 | 4,622 | 832 | 3,185 | 23 | 70 | 5 | 507 | 1.6 | 0.3 | 18.6 | 0.4 | 1.1 | 0.5 | 2.3 |
| 1982–83 | 4,491 | 774 | 2,956 | 31 | 60 | 5 | 665 | — | — | — | — | — | — | — |
| 1984–85 | 4,190 | 799 | 2,555 | 34 | 58 | 20 | 724 | 1.5 | 0.4 | 18.3 | 0.5 | 0.7 | 1.6 | 2.7 |
| 1986–87 | 4,012 | 844 | 2,443 | 25 | 155 | 10 | 535 | 1.4 | 0.4 | 17.6 | 0.4 | 1.8 | 0.9 | 1.8 |
| 1988–89 | 3,904 | 885 | 2,388 | 37 | 119 | 8 | 467 | 1.3 | 0.4 | 16.9 | 0.5 | 1.2 | 0.7 | 1.4 |
| 1989–90 | 4,036 | 1,103 | 2,352 | 34 | 117 | 13 | 417 | 1.3 | 0.4 | 15.3 | 0.4 | 1.1 | 1.2 | 1.2 |
| 1990–91 | 4,114 | 1,076 | 2,482 | 24 | 108 | 0 | 352 | 1.2 | 0.4 | 16.3 | 0.3 | 1.0 | 0.0 | 0.9 |

### DOCTORAL DEGREES

| | Number of Degrees Conferred | | | | | | | Degrees from Historically Black Colleges and Universities as a Percent of Doctoral Degrees | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1980–81 | 102 | 10 | 69 | 1 | 0 | 0 | 22 | 0.3 | a | 5.5 | 0.2 | 0.0 | 0.0 | 0.5 |
| 1982–83 | 135 | 6 | 85 | 0 | 3 | 0 | 41 | — | — | — | — | — | — | — |
| 1984–85 | 174 | 22 | 105 | 0 | 2 | 0 | 45 | 0.5 | 0.1 | 9.1 | 0.0 | 0.2 | 0.0 | 0.8 |
| 1986–87 | 194 | 23 | 114 | 0 | 7 | 0 | 50 | 0.6 | 0.1 | 10.8 | 0.0 | 0.6 | 0.0 | 0.8 |
| 1988–89 | 187 | 11 | 128 | 0 | 4 | 0 | 44 | 0.5 | a | 12.0 | 0.0 | 0.3 | 0.0 | 0.6 |
| 1989–90 | 207 | 20 | 143 | 1 | 0 | 0 | 43 | 0.5 | 0.1 | 12.5 | 0.1 | 0.0 | 0.0 | 0.5 |
| 1990–91 | 200 | 28 | 127 | 0 | 0 | 0 | 30 | 0.5 | 0.1 | 12.2 | 0.0 | 0.0 | 0.0 | 0.3 |

### FIRST PROFESSIONAL DEGREES

| | Number of Degrees Conferred | | | | | | | Degrees from Historically Black Colleges and Universities as a Percent of Professional Degrees | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1980–81 | 883 | 159 | 622 | 21 | 11 | 5 | 65 | 1.2 | 0.2 | 21.2 | 1.4 | 0.8 | 2.6 | 9.7 |
| 1982–83 | 866 | 97 | 693 | 25 | 1 | 1 | 49 | — | — | — | — | — | — | — |
| 1984–85 | 962 | 165 | 693 | 28 | 5 | 3 | 68 | 1.4 | 0.3 | 22.9 | 1.5 | 0.3 | 1.2 | 7.9 |
| 1986–87 | 872 | 142 | 618 | 15 | 23 | 20 | 54 | 1.2 | 0.2 | 18.1 | 0.7 | 10.0 | 1.6 | 6.1 |
| 1988–89 | 693 | 132 | 478 | 10 | 16 | 1 | 56 | 1.0 | 0.2 | 15.2 | 0.4 | 0.5 | 0.4 | 5.7 |
| 1989–90 | 820 | 149 | 552 | 33 | 18 | 4 | 64 | 1.2 | 0.2 | 16.3 | 1.4 | 0.5 | 1.6 | 6.2 |
| 1990–91 | 546 | 141 | 317 | 26 | 10 | 0 | 46 | 0.8 | 0.2 | 8.9 | 1.0 | 0.3 | 0.0 | 4.3 |

**Source:** Hoffman, Charlene, Thomas D. Snyder and Bill Sonnenberg. Historically Black Colleges and Universities, 1976–90. Washington, DC: Department of Education, National Center for Education Statistics, July 1992. U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), "Completions" surveys (Analysis done by the American Council on Education's Division of Policy Analysis and Research, December 1993).

**Note:** Data in this table exclude persons whose racial/ethnic identification was not available. Because of rounding, details may not add to totals.

[a] Less than 0.05 percent.
— Data not available.

## Table 13
# Degrees Conferred by Hispanic-Serving Institutions by Race/Ethnicity and Level, 1990–91

| | TOTAL | White | African American | Hispanic | Asian American | American Indian | Non-Resident Alien |
|---|---|---|---|---|---|---|---|
| Associate Degrees | 23,725 | 7,657 | 2,905 | 9,465 | 1,201 | 128 | 670 |
| Bachelor's Degrees | 17,618 | 7,357 | 1,086 | 6,857 | 815 | 80 | 699 |
| Master's Degrees | 5,015 | 2,634 | 239 | 1,111 | 158 | 21 | 382 |
| Doctoral Degrees | 99 | 55 | 0 | 15 | 0 | 0 | 18 |
| First Professional Degrees | 216 | 179 | 3 | 26 | 2 | 1 | 3 |

## Degrees Conferred by Hispanic-Serving Institutions as a Percent of Total Degrees

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Associate Degrees | 5.1 | 2.0 | 7.7 | 39.0 | 8.7 | 3.5 | 10.1 |
| Bachelor's Degrees | 1.6 | 0.8 | 1.7 | 18.7 | 2.0 | 1.8 | 2.4 |
| Master's Degrees | 1.5 | 1.0 | 1.5 | 13.3 | 1.4 | 1.8 | 1.0 |
| Doctoral Degrees | 0.3 | 0.2 | 0.0 | 2.0 | 0.0 | 0.0 | 0.2 |
| First Professional Degrees | 0.3 | 0.3 | 0.1 | 1.0 | 0.1 | 0.4 | 0.3 |

**Sources:** U.S. Department of Education National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS) "Completions" survey. (Analysis done by the American Council on Education's Division of Policy Analysis and Research, December 1993)

**Note:** Hispanic-serving institutions are those two-year and four-year institutions at which Hispanics constitute a minimum of 25 percent of the undergraduate or graduate enrollment. Data exclude persons whose racial/ethnic group was not available. Therefore, the sum of the detail may not equal the total.

## Table 14
# Bachelor's Degrees for Selected Fields by Race/Ethnicity and Sex, 1981, 1990, and 1991

| | TOTAL | | | | | MINORITIES | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Field of Study | 1981 Total | 1990 Total | 1991 Total | Percent Change 1981–91 | Percent Change 1990–91 | 1981 Total | 1990 Total | 1991 Total | Percent Change 1981–91 | Percent Change 1990–91 |
| EDUCATION | | | | | | | | | | |
| Total | 108,265 | 105,267 | 111,010 | 2.5 | 5.5 | 13,633 | 8,788 | 9,845 | -3.6 | 12.0 |
| Men | 27,069 | 23,020 | 23,445 | -13.4 | 1.8 | 3,763 | 2,261 | 2,384 | -16.2 | 5.4 |
| Women | 81,196 | 82,247 | 87,565 | 7.8 | 6.5 | 9,870 | 6,527 | 7,461 | 1.2 | 14.3 |
| BUSINESS | | | | | | | | | | |
| Total | 200,857 | 249,365 | 249,960 | 24.4 | 0.2 | 22,093 | 32,232 | 34,527 | 56.3 | 7.1 |
| Men | 127,058 | 132,757 | 132,058 | 3.9 | -0.5 | 11,572 | 13,974 | 14,810 | 28.0 | 6.0 |
| Women | 73,799 | 116,608 | 117,902 | 59.8 | 1.1 | 10,521 | 18,258 | 19,717 | 87.4 | 8.0 |
| SOCIAL SCIENCES | | | | | | | | | | |
| Total | 100,647 | 117,855 | 124,893 | 24.1 | 6.0 | 13,136 | 16,168 | 17,932 | 36.5 | 10.9 |
| Men | 56,156 | 65,790 | 68,600 | 22.2 | 4.3 | 6,346 | 7,716 | 8,337 | 31.4 | 8.0 |
| Women | 44,491 | 52,065 | 56,293 | 26.5 | 8.1 | 6,790 | 8,452 | 9,595 | 41.3 | 13.5 |
| HEALTH PROFESSIONS | | | | | | | | | | |
| Total | 63,649 | 58,454 | 59,268 | -6.9 | 1.4 | 6,277 | 7,894 | 8,249 | 31.4 | 4.5 |
| Men | 10,519 | 9,199 | 9,695 | -7.8 | 5.4 | 1,036 | 1,273 | 1,472 | 42.1 | 15.6 |
| Women | 53,130 | 49,255 | 49,573 | -6.7 | 0.6 | 5,241 | 6,621 | 6,777 | 29.3 | 2.4 |
| BIOLOGICAL/LIFE SCIENCES | | | | | | | | | | |
| Total | 43,216 | 37,204 | 39,530 | -8.5 | 6.3 | 5,039 | 6,775 | 7,471 | 48.3 | 10.3 |
| Men | 24,149 | 18,312 | 19,412 | -19.6 | 6.0 | 2,499 | 3,034 | 3,317 | 32.7 | 9.3 |
| Women | 19,067 | 18,892 | 20,118 | 5.5 | 6.5 | 2,540 | 3,741 | 4,154 | 63.5 | 11.0 |
| ENGINEERING[a] | | | | | | | | | | |
| Total | 74,954 | 81,598 | 78,864 | 5.2 | -3.4 | 7,143 | 12,969 | 13,496 | 88.9 | 4.1 |
| Men | 67,255 | 70,310 | 67,907 | 1.0 | -3.4 | 6,194 | 10,405 | 10,716 | 73.0 | 3.0 |
| Women | 7,699 | 11,288 | 10,957 | 42.3 | -2.9 | 949 | 2,564 | 2,780 | 192.9 | 8.2 |

*Continued on next page*

**Source:** U.S. Department of Education, National Center for Education Statistics, *Race/Ethnicity Trends in Degrees Conferred by Institutions of Higher Education: 1980–81 through 1989–90*. Washington, DC: Office of Educational Research and Improvement, May 1992; and *Digest of Education Statistics*. Washington, DC: Office of Educational Research and Improvement, 1993.

**Note:** Some institutions did not report the racial/ethnic data for earned degrees. Data for some of these nonreporting institutions were imputed. Data for academic year 1990 have been revised from previously published numbers. Data represent programs, not organizational units within institutions. Because of rounding, details may not add to totals.

[a] Engineering includes engineering technologies.

[b] Asian American includes Pacific Islanders.

[c] American Indian includes Alaskan Natives.

**Table 14 - *Continued***

**Bachelor's Degrees for Selected Fields by Race/Ethnicity and Sex, 1981, 1990, and 1991**

| | HISPANIC | | | | | AFRICAN AMERICAN | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1981 Total | 1990 Total | 1991 Total | Percent Change 1981–91 | Percent Change 1990–91 | 1981 Total | 1990 Total | 1991 Total | Percent Change 1981–91 | Percent Change 1990–91 |
| EDUCATION | | | | | | | | | | |
| Total | 2,847 | 2,868 | 3,510 | 23.3 | 22.4 | 9,494 | 4,396 | 4,825 | -49.2 | 9.8 |
| Men | 754 | 646 | 750 | -0.5 | 16.1 | 2,587 | 1,197 | 1,199 | -53.7 | 0.2 |
| Women | 2,093 | 2,222 | 2,760 | 31.9 | 24.2 | 6,907 | 3,199 | 3,626 | -47.5 | 13.3 |
| BUSINESS | | | | | | | | | | |
| Total | 4,114 | 7,223 | 7,852 | 90.9 | 8.7 | 13,400 | 15,753 | 16,689 | 24.5 | 5.9 |
| Men | 2,560 | 3,594 | 3,901 | 52.4 | 8.5 | 6,503 | 6,295 | 6,469 | -0.5 | 2.8 |
| Women | 1,554 | 3,629 | 3,951 | 154.2 | 8.9 | 6,897 | 9,458 | 10,220 | 48.2 | 8.1 |
| SOCIAL SCIENCES | | | | | | | | | | |
| Total | 2,888 | 4,104 | 4,681 | 62.1 | 14.1 | 8,129 | 7,210 | 8,099 | -0.4 | 12.3 |
| Men | 1,549 | 2,142 | 2,370 | 53.0 | 10.6 | 3,696 | 3,152 | 3,511 | -5.0 | 11.4 |
| Women | 1,339 | 1,962 | 2,311 | 72.6 | 17.8 | 4,433 | 4,058 | 4,588 | 3.5 | 13.1 |
| HEALTH PROFESSIONS | | | | | | | | | | |
| Total | 1,153 | 1,606 | 1,715 | 48.7 | 6.8 | 3,603 | 4,134 | 4,220 | 17.1 | 2.1 |
| Men | 262 | 315 | 398 | 51.9 | 26.3 | 436 | 511 | 540 | 23.9 | 5.7 |
| Women | 891 | 1,291 | 1,317 | 47.8 | 2.0 | 3,167 | 3,623 | 3,680 | 16.2 | 1.6 |
| BIOLOGICAL/LIFE SCIENCES | | | | | | | | | | |
| Total | 1,144 | 1,290 | 1,503 | 31.4 | 16.5 | 2,269 | 2,017 | 2,154 | -5.1 | 6.8 |
| Men | 648 | 671 | 744 | 14.8 | 10.9 | 954 | 669 | 712 | -25.4 | 6.4 |
| Women | 496 | 619 | 759 | 53.0 | 22.6 | 1,315 | 1,348 | 1,442 | 9.7 | 7.0 |
| ENGINEERING[a] | | | | | | | | | | |
| Total | 1,433 | 2,589 | 2,640 | 84.2 | 2.0 | 2,449 | 3,249 | 3,482 | 42.2 | 7.2 |
| Men | 1,302 | 2,201 | 2,207 | 69.5 | 0.3 | 2,020 | 2,384 | 2,506 | 24.1 | 5.1 |
| Women | 131 | 388 | 433 | 230.5 | 11.6 | 429 | 865 | 976 | 127.5 | 12.8 |

Continued on next page

[a] Engineering includes engineering technologies.

[b] Asian American includes Pacific Islanders.

[c] American Indian includes Alaskan Natives.

## Table 14 - *Continued*

### Bachelor's Degrees for Selected Fields by Race/Ethnicity and Sex, 1981, 1990, and 1991

| | WHITE | | | | | ASIAN AMERICAN | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1981 Total | 1990 Total | 1991 Total | Percent Change 1981–91 | Percent Change 1990–91 | 1981 Total | 1990 Total | 1991 Total | Percent Change 1981–91 | Percent Change 1990–91 |
| EDUCATION | | | | | | | | | | |
| Total | 93,724 | 95,816 | 100,325 | 7.0 | 4.7 | 723 | 928 | 891 | 23.2 | -4.0 |
| Men | 22,876 | 20,489 | 20,751 | -9.3 | 1.3 | 258 | 264 | 257 | -0.4 | -2.7 |
| Women | 70,848 | 75,327 | 79,574 | 12.3 | 5.6 | 465 | 664 | 634 | 36.3 | -4.5 |
| BUSINESS | | | | | | | | | | |
| Total | 174,198 | 209,497 | 206,856 | 18.7 | -1.3 | 3,943 | 8,411 | 9,115 | 131.2 | 8.4 |
| Men | 112,267 | 114,068 | 112,010 | -0.2 | -1.8 | 2,121 | 3,683 | 4,015 | 89.3 | 9.0 |
| Women | 61,931 | 95,429 | 94,846 | 53.1 | -0.6 | 1,822 | 4,728 | 5,100 | 179.9 | 7.9 |
| SOCIAL SCIENCES | | | | | | | | | | |
| Total | 85,535 | 99,215 | 104,198 | 21.8 | 5.0 | 1,645 | 4,334 | 4,632 | 181.6 | 6.9 |
| Men | 48,509 | 56,615 | 58,620 | 20.8 | 3.5 | 860 | 2,159 | 2,201 | 155.9 | 1.9 |
| Women | 37,026 | 42,600 | 45,578 | 23.1 | 7.0 | 785 | 2,175 | 2,431 | 209.7 | 11.8 |
| HEALTH PROFESSIONS | | | | | | | | | | |
| Total | 56,790 | 49,756 | 50,041 | -11.9 | 0.6 | 1,312 | 1,888 | 2,028 | 54.6 | 7.4 |
| Men | 9,276 | 7,677 | 7,940 | -14.4 | 3.4 | 299 | 408 | 482 | 61.2 | 18.1 |
| Women | 47,514 | 42,079 | 42,101 | -11.4 | 0.1 | 1,013 | 1,480 | 1,546 | 52.6 | 4.5 |
| BIOLOGICAL/LIFE SCIENCES | | | | | | | | | | |
| Total | 37,276 | 29,551 | 30,994 | -16.9 | 4.9 | 1,489 | 3,335 | 3,634 | 144.1 | 9.0 |
| Men | 21,085 | 14,836 | 15,550 | -26.3 | 4.8 | 830 | 1,620 | 1,775 | 113.9 | 9.6 |
| Women | 16,191 | 14,715 | 15,444 | -4.6 | 5.0 | 659 | 1,715 | 1,859 | 182.1 | 8.4 |
| ENGINEERING[a] | | | | | | | | | | |
| Total | 60,848 | 63,006 | 60,105 | -1.2 | -4.6 | 3,066 | 6,915 | 7,138 | 132.8 | 3.2 |
| Men | 54,453 | 54,827 | 52,427 | -3.7 | -4.4 | 2,699 | 5,632 | 5,800 | 114.9 | 3.0 |
| Women | 6,395 | 8,179 | 7,678 | 20.1 | -6.1 | 367 | 1,283 | 1,338 | 264.6 | 4.3 |

*Continued on next page*

[a] Engineering includes engineering technologies.

[b] Asian American includes Pacific Islanders.

[c] American Indian includes Alaskan Natives.

**Table 14 - *Continued***

**Bachelor's Degrees for Selected Fields by Race/Ethnicity and Sex, 1981, 1990, and 1991**

| | AMERICAN INDIAN[c] | | | | | NONRESIDENT ALIEN | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1981 Total | 1990 Total | 1991 Total | Percent Change 1981–91 | Percent Change 1990–91 | 1981 Total | 1990 Total | 1991 Total | Percent Change 1981–91 | Percent Change 1990–91 |
| EDUCATION | | | | | | | | | | |
| Total | 569 | 596 | 619 | 8.8 | 3.9 | 908 | 663 | 840 | -7.5 | 26.7 |
| Men | 164 | 154 | 178 | 8.5 | 15.6 | 430 | 270 | 310 | -27.9 | 14.8 |
| Women | 405 | 442 | 441 | 8.9 | -0.2 | 478 | 393 | 530 | 10.9 | 34.9 |
| BUSINESS | | | | | | | | | | |
| Total | 636 | 845 | 871 | 36.9 | 3.1 | 4,566 | 7,636 | 8,577 | 87.8 | 12.3 |
| Men | 388 | 402 | 425 | 9.5 | 5.7 | 3,219 | 4,715 | 5,238 | 62.7 | 11.1 |
| Women | 248 | 443 | 446 | 79.8 | 0.7 | 1,347 | 2,921 | 3,339 | 147.9 | 14.3 |
| SOCIAL SCIENCES | | | | | | | | | | |
| Total | 474 | 520 | 520 | 9.7 | 0.0 | 1,976 | 2,472 | 2,763 | 39.8 | 11.8 |
| Men | 241 | 263 | 255 | 5.8 | -3.0 | 1,301 | 1,459 | 1,643 | 26.3 | 12.6 |
| Women | 233 | 257 | 265 | 13.7 | 3.1 | 675 | 1,013 | 1,120 | 65.9 | 10.6 |
| HEALTH PROFESSIONS | | | | | | | | | | |
| Total | 209 | 266 | 286 | 36.8 | 7.5 | 582 | 804 | 978 | 68.0 | 21.6 |
| Men | 39 | 39 | 52 | 33.3 | 33.3 | 207 | 249 | 284 | 36.7 | 13.7 |
| Women | 170 | 227 | 234 | 37.6 | 3.1 | 375 | 555 | 695 | 85.3 | 25.2 |
| BIOLOGICAL/LIFE SCIENCES | | | | | | | | | | |
| Total | 137 | 133 | 180 | 31.4 | 35.3 | 901 | 878 | 1,065 | 18.2 | 21.3 |
| Men | 67 | 74 | 86 | 28.4 | 16.2 | 565 | 442 | 545 | -3.5 | 23.3 |
| Women | 70 | 59 | 94 | 34.3 | 59.3 | 336 | 436 | 520 | 54.8 | 19.3 |
| ENGINEERING[a] | | | | | | | | | | |
| Total | 195 | 216 | 236 | 21.0 | 9.3 | 6,963 | 5,623 | 5,263 | -24.4 | -6.4 |
| Men | 173 | 188 | 203 | 17.3 | 8.0 | 6,608 | 5,078 | 4,764 | -27.9 | -6.2 |
| Women | 22 | 28 | 33 | 50.0 | 17.9 | 355 | 545 | 499 | 40.6 | -8.4 |

[a] Engineering includes engineering technologies.

[b] Asian American includes Pacific Islanders.

[c] American Indian includes Alaskan Natives.

## Table 15
# Master's Degrees for Selected Fields by Race/Ethnicity and Sex, 1981, 1990, and 1991

| | TOTAL | | | | | MINORITIES | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Field of Study | 1981 Total | 1990 Total | 1991 Total | Percent Change 1981–91 | Percent Change 1990–91 | 1981 Total | 1990 Total | 1991 Total | Percent Change 1981–91 | Percent Change 1990–91 |
| EDUCATION | | | | | | | | | | |
| Total | 98,380 | 86,399 | 88,904 | -9.6 | 2.9 | 12,902 | 9,601 | 10,111 | -21.6 | 5.3 |
| Men | 28,079 | 20,846 | 80,786 | -26.0 | -0.3 | 3,380 | 2,246 | 2,389 | -29.3 | 6.4 |
| Women | 70,301 | 65,553 | 68,118 | -3.1 | 3.9 | 9,522 | 7,355 | 7,722 | -18.9 | 5.0 |
| BUSINESS | | | | | | | | | | |
| Total | 57,541 | 77,146 | 78,681 | 36.7 | 2.0 | 5,016 | 8,155 | 8,583 | 71.1 | 5.2 |
| Men | 43,045 | 50,951 | 51,192 | 18.9 | 0.5 | 3,519 | 4,858 | 4,937 | 40.3 | 1.6 |
| Women | 14,496 | 26,195 | 27,489 | 89.6 | 4.9 | 1,497 | 3,297 | 3,646 | 143.6 | 10.6 |
| SOCIAL SCIENCES | | | | | | | | | | |
| Total | 11,917 | 11,497 | 12,069 | 1.3 | 5.0 | 1,172 | 1,124 | 1,266 | 8.2 | 12.8 |
| Men | 7,442 | 6,821 | 6,929 | -6.9 | 1.6 | 667 | 605 | 619 | -7.2 | 2.3 |
| Women | 4,475 | 4,676 | 5,140 | 14.9 | 9.9 | 505 | 519 | 649 | 28.5 | 25.0 |
| HEALTH PROFESSIONS | | | | | | | | | | |
| Total | 16,515 | 20,364 | 21,228 | 28.5 | 4.2 | 1,642 | 2,116 | 2,217 | 35.0 | 4.8 |
| Men | 4,316 | 4,553 | 4,465 | 3.5 | -1.9 | 464 | 518 | 527 | 13.6 | 1.7 |
| Women | 12,199 | 15,811 | 16,763 | 37.4 | 6.0 | 1,178 | 1,598 | 1,690 | 43.5 | 5.8 |
| PUBLIC AFFAIRS | | | | | | | | | | |
| Total | 20,074 | 18,137 | 18,534 | -7.7 | 2.2 | 2,920 | 2,966 | 3,000 | 35.0 | 0.1 |
| Men | 8,957 | 6,232 | 6,159 | -31.2 | -1.2 | 1,219 | 1,029 | 1,028 | -15.7 | -0.1 |
| Women | 11,117 | 11,905 | 12,375 | 11.3 | 3.9 | 1,701 | 1,937 | 1,972 | 15.9 | 1.8 |
| ENGINEERING [a] | | | | | | | | | | |
| Total | 16,358 | 24,773 | 24,959 | 52.6 | 0.8 | 1,648 | 2,921 | 3,178 | 92.8 | 8.8 |
| Men | 14,998 | 21,358 | 21,430 | 42.9 | 0.3 | 1,473 | 2,386 | 2,619 | 77.8 | 9.8 |
| Women | 1,360 | 3,415 | 3,529 | 159.5 | 3.3 | 175 | 535 | 559 | 219.4 | 4.5 |

**Source:** U.S. Department of Education, National Center for Education Statistics, *Race/Ethnicity Trends in Degrees Conferred by Institutions of Higher Education: 1980-81 through 1989-90* Washington, DC: Office of Educational Research and Improvement, May 1992, and *Digest of Education Statistics* Washington, DC: Office of Educational Research and Improvement, 1993.

**Note:** Some institutions did not report the racial/ethnic data for earned degrees. Data for some of these nonreporting institutions were imputed. Data for academic year 1990 have been revised from previously published numbers. Data represent programs, not organizational units within institutions. Because of rounding, details may not add to totals.

[a] Engineering includes engineering technologies.

[b] Asian American includes Pacific Islanders.

[c] American Indian includes Alaskan Natives.

**Table 15 — *Continued***

## Master's Degrees for Selected Fields by Race/Ethnicity and Sex, 1981, 1990, and 1991

| | HISPANIC | | | | | AFRICAN AMERICAN | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1981 Total | 1990 Total | 1991 Total | Percent Change 1981–91 | Percent Change 1990–91 | 1981 Total | 1990 Total | 1991 Total | Percent Change 1981–91 | Percent Change 1990–91 |
| EDUCATION | | | | | | | | | | |
| Total | 2,831 | 2,542 | 2,741 | -3.2 | 7.8 | 8,645 | 5,625 | 5,836 | -32.5 | 3.8 |
| Men | 869 | 695 | 724 | -16.7 | 4.2 | 2,061 | 1,179 | 1,277 | -38.0 | 8.3 |
| Women | 1,962 | 1,847 | 2,017 | 2.8 | 9.2 | 6,584 | 4,446 | 4,559 | -30.8 | 2.5 |
| BUSINESS | | | | | | | | | | |
| Total | 869 | 1,643 | 1,688 | 94.2 | 2.7 | 2,359 | 3,345 | 3,536 | 49.9 | 5.7 |
| Men | 676 | 1,043 | 1,046 | 54.7 | 0.3 | 1,554 | 1,809 | 1,829 | 17.7 | 1.1 |
| Women | 193 | 600 | 642 | 232.6 | 7.0 | 805 | 1,536 | 1,707 | 112.0 | 11.1 |
| SOCIAL SCIENCES | | | | | | | | | | |
| Total | 280 | 291 | 298 | 6.4 | 2.4 | 615 | 459 | 568 | -7.6 | 23.7 |
| Men | 181 | 158 | 160 | -11.6 | 1.3 | 311 | 239 | 256 | -17.7 | 7.1 |
| Women | 99 | 133 | 138 | 39.4 | 3.8 | 304 | 220 | 312 | 2.6 | 41.8 |
| HEALTH PROFESSIONS | | | | | | | | | | |
| Total | 251 | 460 | 445 | 77.3 | -3.3 | 889 | 934 | 1049 | 18.0 | 12.3 |
| Men | 86 | 124 | 120 | 39.5 | -3.2 | 197 | 173 | 204 | 3.6 | 17.9 |
| Women | 165 | 336 | 325 | 97.0 | -3.3 | 692 | 761 | 845 | 22.1 | 11.0 |
| PUBLIC AFFAIRS | | | | | | | | | | |
| Total | 629 | 661 | 712 | 13.2 | 7.7 | 1,893 | 1,855 | 1,805 | -4.6 | -2.7 |
| Men | 310 | 252 | 258 | -16.8 | 2.4 | 713 | 603 | 556 | -22.0 | -7.8 |
| Women | 319 | 409 | 454 | 42.3 | 11.0 | 1,180 | 1,252 | 1,249 | 5.8 | -0.2 |
| ENGINEERING[a] | | | | | | | | | | |
| Total | 278 | 452 | 491 | 76.6 | 8.6 | 260 | 437 | 467 | 79.6 | 6.9 |
| Men | 251 | 380 | 404 | 61.0 | 6.3 | 222 | 323 | 348 | 56.8 | 7.7 |
| Women | 27 | 72 | 87 | 222.2 | 20.8 | 38 | 114 | 119 | 213.2 | 4.4 |

[a] Engineering includes engineering technologies

[b] Asian American includes Pacific Islanders

[c] American Indian includes Alaskan Natives

*Continued on next page*

**Table 15 — *Continued***

## Master's Degrees for Selected Fields by Race/Ethnicity and Sex, 1981, 1990, and 1991

| | WHITE | | | | | ASIAN AMERICAN[b] | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1981 Total | 1990 Total | 1991 Total | Percent Change 1981–91 | Percent Change 1990–91 | 1981 Total | 1990 Total | 1991 Total | Percent Change 1981–91 | Percent Change 1990–91 |
| EDUCATION | | | | | | | | | | |
| Total | 82,779 | 73,860 | 76,102 | -8.1 | 3.0 | 973 | 1,023 | 1,121 | 15.2 | 9.6 |
| Men | 23,291 | 17,347 | 17,417 | -25.2 | 0.4 | 291 | 263 | 276 | -5.2 | 4.9 |
| Women | 59,488 | 56,513 | 58,685 | -1.3 | 3.8 | 682 | 760 | 845 | 23.9 | 11.2 |
| BUSINESS | | | | | | | | | | |
| Total | 47,474 | 60,793 | 61,431 | 29.4 | 1.0 | 1,633 | 2,979 | 3,156 | 93.3 | 5.9 |
| Men | 35,380 | 40,198 | 40,072 | 13.3 | -0.3 | 1,161 | 1,879 | 1,937 | 66.8 | 3.1 |
| Women | 12,094 | 20,595 | 21,359 | 76.6 | 3.7 | 472 | 1,100 | 1,219 | 158.3 | 10.8 |
| SOCIAL SCIENCES | | | | | | | | | | |
| Total | 9,150 | 8,069 | 8,510 | -7.0 | 5.5 | 233 | 327 | 357 | 53.2 | 9.2 |
| Men | 5,571 | 4,667 | 4,791 | -14.0 | 2.7 | 147 | 188 | 183 | 24.5 | -2.7 |
| Women | 3,579 | 3,402 | 3,719 | 3.9 | 9.3 | 86 | 139 | 174 | 102.3 | 25.2 |
| HEALTH PROFESSIONS | | | | | | | | | | |
| Total | 14,175 | 17,143 | 17,772 | 25.4 | 3.7 | 448 | 639 | 528 | 40.2 | -17.4 |
| Men | 3,443 | 3,545 | 3,395 | -1.4 | -4.2 | 164 | 199 | 180 | 9.8 | -9.5 |
| Women | 10,732 | 13,598 | 14,377 | 34.0 | 5.7 | 284 | 440 | 348 | 57.7 | -1.8 |
| PUBLIC AFFAIRS | | | | | | | | | | |
| Total | 16,435 | 14,392 | 14,739 | -10.3 | 2.4 | 306 | 362 | 384 | 25.5 | 6.1 |
| Men | 7,212 | 4,686 | 4,695 | -34.9 | 0.2 | 149 | 136 | 179 | 20.1 | 31.6 |
| Women | 9,223 | 9,706 | 10,044 | 8.9 | 3.5 | 157 | 226 | 205 | 30.6 | -9.3 |
| ENGINEERING[a] | | | | | | | | | | |
| Total | 10,147 | 14,264 | 14,144 | 39.4 | -0.8 | 1,079 | 1,989 | 2,175 | 101.6 | 9.4 |
| Men | 9,177 | 12,109 | 12,038 | 31.2 | -0.6 | 974 | 1,650 | 1,830 | 87.9 | 10.9 |
| Women | 970 | 2,155 | 2,106 | 117.1 | -2.3 | 105 | 339 | 345 | 228.6 | 1.8 |

*Continued on next page*

[a] Engineering includes engineering technologies.

[b] Asian American includes Pacific Islanders.

[c] American Indian includes Alaskan Natives.

**Table 15 — *Continued***

## Master's Degrees for Selected Fields by Race/Ethnicity and Sex, 1981, 1990, and 1991

| | AMERICAN INDIAN[c] | | | | | NONRESIDENT ALIEN | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1981 Total | 1990 Total | 1991 Total | Percent Change 1981–91 | Percent Change 1990–91 | 1981 Total | 1990 Total | 1991 Total | Percent Change 1981–91 | Percent Change 1990–91 |
| EDUCATION | | | | | | | | | | |
| Total | 453 | 411 | 413 | -8.8 | 0.5 | 2,699 | 2,938 | 2,691 | -0.3 | -8.4 |
| Men | 159 | 109 | 112 | -29.6 | 2.8 | 1,408 | 1,253 | 980 | -30.4 | -21.8 |
| Women | 294 | 302 | 301 | 2.4 | -0.3 | 1,291 | 1,685 | 1,711 | 32.5 | 1.5 |
| BUSINESS | | | | | | | | | | |
| Total | 155 | 188 | 203 | 31.0 | 8.0 | 5,051 | 8,198 | 8,667 | 71.6 | 5.7 |
| Men | 128 | 127 | 125 | -2.3 | -1.6 | 4,146 | 5,895 | 6,183 | 49.1 | 4.9 |
| Women | 27 | 61 | 78 | 188.9 | 27.9 | 905 | 2,303 | 2,484 | 174.5 | 7.9 |
| SOCIAL SCIENCES | | | | | | | | | | |
| Total | 44 | 47 | 45 | 2.3 | -4.3 | 1,595 | 2,304 | 2,291 | 43.6 | -0.6 |
| Men | 28 | 20 | 20 | -28.6 | 0.0 | 1,204 | 1,549 | 1,519 | 26.2 | 1.9 |
| Women | 16 | 27 | 25 | 56.3 | -7.4 | 391 | 755 | 772 | 97.4 | 2.3 |
| HEALTH PROFESSIONS | | | | | | | | | | |
| Total | 54 | 83 | 95 | 75.9 | 14.5 | 698 | 1,105 | 1,239 | 77.5 | 12.1 |
| Men | 17 | 22 | 23 | 35.3 | 4.5 | 409 | 490 | 543 | 32.8 | 10.8 |
| Women | 37 | 61 | 72 | 94.6 | 18.0 | 289 | 615 | 696 | 140.8 | 13.2 |
| PUBLIC AFFAIRS | | | | | | | | | | |
| Total | 92 | 88 | 99 | 7.6 | 12.5 | 719 | 779 | 795 | 10.6 | 2.1 |
| Men | 47 | 38 | 35 | -25.5 | -7.9 | 526 | 517 | 436 | -17.1 | -15.7 |
| Women | 45 | 50 | 64 | 42.2 | 28.0 | 193 | 262 | 359 | 86.0 | 37.0 |
| ENGINEERING[a] | | | | | | | | | | |
| Total | 31 | 43 | 45 | 45.2 | 4.7 | 4,563 | 7,588 | 7,637 | 67.4 | 0.6 |
| Men | 26 | 33 | 37 | 42.3 | 12.1 | 4,348 | 6,863 | 6,773 | 55.8 | -1.3 |
| Women | 5 | 10 | 8 | 60.0 | -20.0 | 215 | 725 | 864 | 301.9 | 19.2 |

[a] Engineering includes engineering technologies.

[b] Asian American includes Pacific Islanders.

[c] American Indian includes Alaskan Natives.

## Table 16
# Doctoral Degrees by U.S. Citizenship, Race/Ethnicity and Sex, 1982 to 1992

| | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | Percent Change 1982–92 | Percent Change 1991–92 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TOTAL DOCTORATES[a] | 31,106 | 31,280 | 31,332 | 31,291 | 31,896 | 32,367 | 33,489 | 34,318 | 36,052 | 37,503 | 38,814 | 24.8 | 3.5 |
| Men | 21,013 | 20,747 | 20,633 | 20,547 | 20,590 | 20,941 | 21,677 | 21,811 | 22,953 | 23,638 | 24,448 | 16.3 | 3.4 |
| Women | 10,093 | 10,533 | 10,699 | 10,744 | 11,306 | 11,426 | 11,812 | 12,507 | 13,099 | 13,865 | 14,366 | 42.3 | 3.6 |
| U.S. CITIZENS[b] | | | | | | | | | | | | | |
| All U.S. Citizens | 24,388 | 24,358 | 24,026 | 23,363 | 23,081 | 22,991 | 23,288 | 23,400 | 24,894 | 25,543 | 25,759 | 5.6 | 0.8 |
| Men | 15,559 | 15,119 | 14,729 | 14,217 | 13,633 | 13,581 | 13,725 | 13,397 | 14,159 | 14,366 | 14,391 | -7.5 | 0.2 |
| Women | 8,829 | 9,239 | 9,297 | 9,146 | 9,448 | 9,410 | 9,563 | 10,003 | 10,735 | 11,177 | 11,368 | 28.8 | 1.7 |
| White | 21,677 | 21,699 | 21,349 | 20,757 | 20,626 | 20,470 | 20,782 | 20,893 | 22,162 | 22,392 | 22,718 | 4.8 | 1.5 |
| Men | 13,987 | 13,609 | 13,170 | 12,805 | 12,303 | 12,172 | 12,343 | 11,989 | 12,684 | 12,661 | 12,741 | -8.9 | 0.6 |
| Women | 7,690 | 8,090 | 8,179 | 7,952 | 8,323 | 8,298 | 8,439 | 8,904 | 9,478 | 9,731 | 9,977 | 29.7 | 2.5 |
| African American | 1,047 | 922 | 953 | 912 | 823 | 767 | 814 | 821 | 898 | 1,001 | 951 | -9.2 | -5.0 |
| Men | 483 | 413 | 427 | 379 | 322 | 317 | 315 | 327 | 351 | 415 | 386 | -20.1 | -7.0 |
| Women | 564 | 509 | 526 | 533 | 501 | 450 | 499 | 494 | 547 | 586 | 565 | 0.2 | -3.6 |
| Hispanic | 535 | 539 | 536 | 561 | 572 | 619 | 597 | 582 | 717 | 730 | 755 | 41.1 | 3.4 |
| Men | 344 | 288 | 314 | 300 | 303 | 333 | 323 | 309 | 378 | 370 | 402 | 16.9 | 8.6 |
| Women | 191 | 251 | 222 | 261 | 269 | 286 | 274 | 273 | 339 | 360 | 353 | 84.8 | -1.9 |
| Asian American | 452 | 492 | 512 | 516 | 531 | 542 | 614 | 626 | 641 | 787 | 826 | 83.2 | 5.2 |
| Men | 281 | 312 | 338 | 329 | 348 | 369 | 414 | 441 | 427 | 482 | 523 | 86.1 | 8.5 |
| Women | 171 | 180 | 174 | 187 | 183 | 173 | 200 | 185 | 214 | 305 | 305 | 78.4 | 0.0 |
| American Indian[c] | 77 | 81 | 74 | 95 | 99 | 115 | 94 | 94 | 96 | 130 | 148 | 92.2 | 13.8 |
| Men | 44 | 50 | 54 | 39 | 58 | 62 | 52 | 49 | 52 | 74 | 81 | 84.1 | 9.5 |
| Women | 33 | 31 | 20 | 56 | 41 | 53 | 42 | 45 | 44 | 56 | 67 | 103.0 | 19.6 |
| NON-U.S. CITIZENS | | | | | | | | | | | | | |
| Total | 5,432 | 5,774 | 6,054 | 6,553 | 6,707 | 7,187 | 7,817 | 8,273 | 9,790 | 11,161 | 11,846 | 118.1 | 6.1 |
| Men | 4,536 | 4,825 | 5,024 | 5,394 | 5,481 | 5,839 | 6,298 | 6,582 | 7,821 | 8,736 | 9,199 | 102.8 | 5.3 |
| Women | 896 | 949 | 1,030 | 1,159 | 1,226 | 1,348 | 1,519 | 1,691 | 1,969 | 2,425 | 2,647 | 195.4 | 9.2 |

**Source:** National Research Council, Doctorate Records File, various years.

[a] Includes doctorates with unknown citizenship status and unknown race/ethnicity.

[b] Includes doctorates with unknown race/ethnicity.

[c] American Indian includes Alaskan Natives.

## Table 17
# Doctoral Degrees by Field, U.S. Citizenship, and Race/Ethnicity, 1980, 1990, 1991, and 1992

| | TOTAL | | | | | PHYSICAL SCIENCES | | | | | ENGINEERING | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1980 | 1990 | 1991 | 1992 | Percent Change 1991–92 | 1980 | 1990 | 1991 | 1992 | Percent Change 1991–92 | 1980 | 1990 | 1991 | 1992 | Percent Change 1991–92 |
| Total Doctorates[a] | 31,020 | 36,027 | 37,503 | 38,814 | 3.5 | 4,111 | 5,872 | 6,276 | 6,482 | 3.3 | 2,479 | 4,900 | 5,212 | 5,434 | 4.3 |
| American Indian | 75 | 96 | 132 | 150 | 13.6 | 5 | 5 | 14 | 17 | 21.1 | 3 | 4 | 6 | 11 | 82.5 |
| Asian American | 2,621 | 6,080 | 7,520 | 8,217 | 9.3 | 605 | 1,563 | 1,846 | 2,104 | 14.0 | 740 | 1,800 | 2,182 | 2,440 | 11.8 |
| African American | 1,445 | 1,255 | 1,456 | 1,402 | -3.7 | 50 | 53 | 90 | 81 | -9.6 | 57 | 74 | 77 | 72 | -7.1 |
| Hispanic | 821 | 1,192 | 1,319 | 1,368 | 3.7 | 91 | 166 | 192 | 197 | 2.6 | 77 | 124 | 127 | 138 | 8.7 |
| White | 23,805 | 24,246 | 25,300 | 25,689 | 1.5 | 3,013 | 3,516 | 3,707 | 3,751 | 1.2 | 1,428 | 2,352 | 2,310 | 2,440 | 5.6 |
| U.S. Citizens[b] | 25,222 | 24,886 | 25,543 | 25,759 | 0.8 | 3,072 | 3,407 | 3,450 | 3,529 | 2.3 | 1,255 | 1,953 | 1,977 | 2,112 | 6.8 |
| American Indian | 75 | 96 | 132 | 150 | 13.6 | 5 | 5 | 14 | 17 | 21.1 | 3 | 4 | 6 | 11 | 82.5 |
| Asian American | 458 | 640 | 787 | 828 | 5.2 | 75 | 111 | 143 | 177 | 23.9 | 73 | 157 | 185 | 213 | 15.0 |
| African American | 1,032 | 897 | 1,001 | 951 | -5.0 | 25 | 27 | 40 | 34 | -14.4 | 11 | 28 | 43 | 31 | -27.0 |
| Hispanic | 412 | 718 | 730 | 757 | 3.7 | 27 | 85 | 80 | 88 | 10.0 | 18 | 39 | 47 | 58 | 23.4 |
| White | 21,994 | 22,156 | 22,392 | 22,718 | 1.5 | 2,715 | 3,097 | 3,107 | 3,135 | 0.9 | 1,068 | 1,686 | 1,659 | 1,749 | 5.4 |

| | LIFE SCIENCES | | | | | SOCIAL SCIENCES | | | | | HUMANITIES | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1980 | 1990 | 1991 | 1992 | Percent Change 1991-92 | 1980 | 1990 | 1991 | 1992 | Percent Change 1991-92 | 1980 | 1990 | 1991 | 1992 | Percent Change 1991-92 |
| Total Doctorates[a] | 5,461 | 6,629 | 6,928 | 7,103 | 2.5 | 5,856 | 6,089 | 6,127 | 6,210 | 1.4 | 3,871 | 3,819 | 4,094 | 4,425 | 8.1 |
| American Indian | 7 | 9 | 19 | 20 | 5.0 | 13 | 23 | 21 | 26 | 23.6 | 3 | 8 | 10 | 19 | 90.5 |
| Asian American | 482 | 1,125 | 1,365 | 1,602 | 17.4 | 320 | 596 | 695 | 748 | 7.6 | 132 | 213 | 302 | 337 | 11.6 |
| African American | 161 | 166 | 192 | 199 | 3.7 | 249 | 269 | 280 | 261 | -6.9 | 127 | 87 | 122 | 137 | 12.6 |
| Hispanic | 173 | 241 | 263 | 278 | 5.7 | 150 | 234 | 259 | 260 | 0.4 | 118 | 177 | 188 | 196 | 4.3 |
| White | 4,258 | 4,558 | 4,665 | 4,675 | 0.2 | 4,691 | 4,364 | 4,357 | 4,521 | 3.8 | 3,191 | 3,031 | 3,203 | 3,545 | 10.7 |
| U.S. Citizens[b] | 4,415 | 4,612 | 4,629 | 4,662 | 0.7 | 4,992 | 4,655 | 4,499 | 4,611 | 2.5 | 3,395 | 3,091 | 3,151 | 3,452 | 9.5 |
| American Indian | 7 | 9 | 19 | 20 | 5.0 | 13 | 23 | 21 | 26 | 23.6 | 3 | 8 | 10 | 19 | 90.5 |
| Asian American | 102 | 154 | 186 | 175 | -6.1 | 79 | 86 | 84 | 95 | 13.4 | 40 | 35 | 44 | 52 | 18.6 |
| African American | 65 | 73 | 85 | 86 | 0.7 | 180 | 180 | 192 | 179 | -6.9 | 97 | 72 | 91 | 95 | 4.5 |
| Hispanic | 36 | 103 | 97 | 115 | 18.6 | 93 | 169 | 176 | 160 | -9.1 | 79 | 111 | 110 | 107 | -2.7 |
| White | 3,958 | 4,206 | 4,174 | 4,203 | 0.7 | 4,402 | 4,122 | 3,975 | 4,089 | 2.9 | 3,021 | 2,820 | 2,843 | 135 | 10.3 |

| | EDUCATION | | | | | PROFESSIONAL-OTHER | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1980 | 1990 | 1991 | 1992 | Percent Change 1991–92 | 1980 | 1990 | 1991 | 1992 | Percent Change 1991-92 |
| Total Doctorates[a] | 7,586 | 6,485 | 6,397 | 6,637 | 3.8 | 1,656 | 2,270 | 2,417 | 2,484 | 2.8 |
| American Indian | 43 | 37 | 52 | 50 | -3.9 | 1 | 10 | 6 | 7 | 17.5 |
| Asian American | 242 | 353 | 412 | 460 | 11.7 | 100 | 426 | 469 | 534 | 13.9 |
| African American | 701 | 513 | 487 | 540 | 10.8 | 100 | 94 | 107 | 111 | 3.5 |
| Hispanic | 183 | 201 | 207 | 240 | 15.9 | 29 | 49 | 44 | 59 | 34.1 |
| White | 5,919 | 4,922 | 4,862 | 5,112 | 5.1 | 1,305 | 1,503 | 1,567 | 1,644 | 4.9 |
| U.S. Citizens[b] | 6,749 | 5,629 | 5,424 | 5,744 | 5.9 | 1,344 | 1,539 | 1,591 | 1,649 | 3.6 |
| American Indian | 43 | 37 | 52 | 50 | -3.9 | 1 | 10 | 6 | 7 | 17.5 |
| Asian American | 65 | 66 | 81 | 77 | -4.9 | 24 | 31 | 39 | 39 | -0.2 |
| African American | 591 | 455 | 404 | 459 | 13.7 | 63 | 62 | 78 | 67 | -14.7 |
| Hispanic | 144 | 180 | 170 | 194 | 14.1 | 15 | 31 | 28 | 35 | 25.0 |
| White | 5,652 | 4,837 | 4,680 | 4,930 | 5.3 | 1,178 | 1,388 | 1,421 | 1,477 | 3.9 |

Source: National Research Council, Doctorate Records File, various years.

[a] Total Doctorates figure includes unknown citizenship and unknown race.

[b] Totals for other categories include unknown race.

## Table 18
# Associate and Bachelor's Degrees Conferred by State, 1980–81 and 1990–91

| | ASSOCIATE DEGREES | | | BACHELOR'S DEGREES | | |
|---|---|---|---|---|---|---|
| | 1980–81 | 1990–91 | Percent Change 1981–91 | 1980–81 | 1990–91 | Percent Change 1981–91 |
| ALABAMA | 4,839 | 6,584 | 36.1 | 16,534 | 18,308 | 10.7 |
| ALASKA | 512 | 636 | 24.2 | 465 | 1,148 | 146.9 |
| ARIZONA | 5,180 | 6,066 | 17.1 | 10,826 | 18,068 | 66.9 |
| ARKANSAS | 1,785 | 2,741 | 53.6 | 6,955 | 7,729 | 11.1 |
| CALIFORNIA | 59,490 | 56,943 | -4.3 | 81,848 | 100,484 | 22.8 |
| COLORADO | 4,483 | 6,163 | 37.5 | 14,677 | 16,728 | 14.0 |
| CONNECTICUT | 5,381 | 4,758 | -11.6 | 13,312 | 14,630 | 9.9 |
| DELAWARE | 1,195 | 1,304 | 9.1 | 3,194 | 4,008 | 25.5 |
| DISTRICT OF COLUMBIA | 639 | 325 | -49.1 | 6,807 | 7,614 | 11.9 |
| FLORIDA | 31,503 | 35,876 | 13.9 | 29,988 | 38,927 | 29.8 |
| GEORGIA | 5,978 | 7,938 | 32.8 | 17,014 | 22,322 | 31.2 |
| HAWAII | 2,120 | 2,317 | 9.3 | 3,212 | 3,711 | 15.5 |
| IDAHO | 2,015 | 3,117 | 54.7 | 2,759 | 3,136 | 13.7 |
| ILLINOIS | 21,173 | 24,464 | 15.5 | 44,470 | 50,508 | 13.6 |
| INDIANA | 6,932 | 8,851 | 27.7 | 24,834 | 28,886 | 16.3 |
| IOWA | 5,603 | 8,079 | 44.2 | 14,441 | 16,996 | 17.7 |
| KANSAS | 4,564 | 5,821 | 27.5 | 11,672 | 13,035 | 11.7 |
| KENTUCKY | 4,818 | 5,759 | 19.5 | 11,509 | 12,973 | 12.7 |
| LOUISIANA | 2,066 | 2,866 | 38.7 | 14,821 | 16,309 | 10.0 |
| MAINE | 1,731 | 2,118 | 22.4 | 4,817 | 5,227 | 8.5 |
| MARYLAND | 6,778 | 7,656 | 13.0 | 15,901 | 19,235 | 21.0 |
| MASSACHUSETTS | 14,632 | 13,330 | -8.9 | 38,792 | 44,487 | 14.7 |
| MICHIGAN | 18,938 | 22,422 | 18.4 | 38,647 | 44,213 | 14.4 |
| MINNESOTA | 6,590 | 8,008 | 21.5 | 19,392 | 23,619 | 21.8 |
| MISSISSIPPI | 4,190 | 5,119 | 22.2 | 8,982 | 9,106 | 1.4 |
| MISSOURI | 6,384 | 7,563 | 18.5 | 22,041 | 24,917 | 13.0 |
| MONTANA | 534 | 890 | 66.7 | 3,815 | 3,872 | 1.5 |
| NEBRASKA | 2,331 | 2,965 | 27.2 | 7,404 | 8,945 | 20.8 |
| NEVADA | 641 | 1,013 | 58.0 | 1,477 | 2,373 | 60.7 |
| NEW HAMPSHIRE | 1,980 | 2,657 | 34.2 | 6,025 | 7,128 | 18.3 |
| NEW JERSEY | 9,834 | 10,703 | 8.8 | 24,474 | 23,624 | -3.5 |
| NEW MEXICO | 1,347 | 2,479 | 84.0 | 4,543 | 5,242 | 15.4 |
| NEW YORK | 48,679 | 50,865 | 4.5 | 83,777 | 92,629 | 10.6 |
| NORTH CAROLINA | 10,608 | 11,469 | 8.1 | 23,712 | 28,795 | 21.4 |
| NORTH DAKOTA | 1,695 | 1,784 | 5.3 | 3,795 | 4,487 | 18.2 |
| OHIO | 15,455 | 18,446 | 19.4 | 41,306 | 48,799 | 18.1 |
| OKLAHOMA | 3,947 | 6,375 | 61.5 | 12,818 | 14,067 | 9.7 |
| OREGON | 4,309 | 4,844 | 12.4 | 9,783 | 12,963 | 32.5 |
| PENNSYLVANIA | 16,278 | 19,884 | 22.2 | 54,446 | 62,184 | 14.2 |
| RHODE ISLAND | 3,150 | 3,930 | 24.8 | 7,263 | 9,153 | 26.0 |
| SOUTH CAROLINA | 5,501 | 5,097 | -7.3 | 11,358 | 14,250 | 25.5 |
| SOUTH DAKOTA | 1,272 | 906 | -28.8 | 3,868 | 3,680 | -4.9 |
| TENNESSEE | 5,659 | 6,717 | 18.7 | 17,409 | 18,063 | 3.8 |
| TEXAS | 17,626 | 21,521 | 22.1 | 53,589 | 65,112 | 21.5 |
| UTAH | 2,410 | 4,099 | 70.1 | 9,336 | 11,340 | 21.5 |
| VERMONT | 1,285 | 1,227 | -4.5 | 3,971 | 4,553 | 14.7 |
| VIRGINIA | 6,755 | 8,883 | 31.5 | 22,078 | 28,960 | 31.2 |
| WASHINGTON | 11,097 | 15,246 | 37.4 | 16,648 | 19,201 | 15.3 |
| WEST VIRGINIA | 2,386 | 2,632 | 10.3 | 7,720 | 7,533 | -2.4 |
| WISCONSIN | 7,222 | 9,049 | 25.3 | 22,025 | 26,343 | 19.6 |
| WYOMING | 838 | 1,633 | 94.9 | 1,320 | 1,641 | 24.3 |
| U.S. SERVICE SCHOOLS | 4,019 | 9,582 | 138.4 | 3,269 | 3,277 | 0.2 |

**Source:** U.S. Department of Education, National Center for Education Statistics "Degree and Other Formal Awards Conferred" survey and Integrated Postsecondary Education Data System (IPEDS) "Completions" survey. Analysis done by the American Council on Education's Division of Policy Analysis and Research, December 1993.

**Note:** State totals in this table will not add to aggregate totals that appear in other tables in the report because imputations were not performed on state data. Percentages do not total 100 percent.

## Table 19
# Associate and Bachelor's Degrees Conferred to African Americans by State, 1980–81 and 1990–91

| | ASSOCIATE DEGREES | | | | | BACHELOR'S DEGREES | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1980–81 | Percent of Degrees 1980–81 | 1990–91 | Percent of Degrees 1990–91 | Percent Change 1981–91 | 1980–81 | Percent of Degrees 1980–81 | 1990–91 | Percent of Degrees 1990–91 | Percent Change 1981–91 |
| ALABAMA | 1,190 | 24.6 | 1,264 | 19.2 | 6.2 | 2,883 | 17.4 | 2,486 | 13.6 | -13.8 |
| ALASKA | 20 | 3.9 | 17 | 2.7 | -15.0 | 17 | 3.7 | 26 | 2.3 | 52.9 |
| ARIZONA | 189 | 3.6 | 295 | 4.9 | 56.1 | 157 | 1.5 | 533 | 2.9 | 239.5 |
| ARKANSAS | 281 | 15.7 | 356 | 13.0 | 26.7 | 843 | 12.1 | 737 | 9.5 | -12.6 |
| CALIFORNIA | 4,854 | 8.2 | 3,342 | 5.9 | -31.1 | 3,443 | 4.2 | 3,534 | 3.5 | 2.6 |
| COLORADO | 160 | 3.6 | 257 | 4.2 | 60.6 | 313 | 2.1 | 301 | 1.8 | -3.8 |
| CONNECTICUT | 280 | 5.2 | 279 | 5.9 | -0.4 | 357 | 2.7 | 538 | 3.7 | 50.7 |
| DELAWARE | 105 | 8.8 | 100 | 7.7 | -4.8 | 237 | 7.4 | 277 | 6.9 | 16.9 |
| DISTRICT OF COLUMBIA | 353 | 55.2 | 238 | 73.2 | -32.6 | 1,694 | 24.9 | 1,934 | 25.4 | 14.2 |
| FLORIDA | 2,754 | 8.7 | 2,699 | 7.5 | -2.0 | 2,761 | 9.2 | 2,889 | 7.4 | 4.6 |
| GEORGIA | 750 | 12.5 | 1,403 | 17.7 | 87.1 | 2,309 | 13.6 | 2,626 | 11.8 | 13.7 |
| HAWAII | 35 | 1.7 | 62 | 2.7 | 77.1 | 37 | 1.2 | 55 | 1.5 | 48.6 |
| IDAHO | 1 | 0.0 | 5 | 0.2 | 400.0 | 16 | 0.6 | 7 | 0.2 | -56.3 |
| ILLINOIS | 2,201 | 10.4 | 2,298 | 9.4 | 4.4 | 3,254 | 7.3 | 3,416 | 6.8 | 5.0 |
| INDIANA | 329 | 4.7 | 404 | 4.6 | 22.8 | 785 | 3.2 | 907 | 3.1 | 15.5 |
| IOWA | 61 | 1.1 | 109 | 1.3 | 78.7 | 241 | 1.7 | 233 | 1.4 | -3.3 |
| KANSAS | 234 | 5.1 | 359 | 6.2 | 53.4 | 319 | 2.7 | 336 | 2.6 | 5.3 |
| KENTUCKY | 306 | 6.4 | 326 | 5.7 | 6.5 | 508 | 4.4 | 528 | 4.1 | 3.9 |
| LOUISIANA | 524 | 25.4 | 649 | 22.6 | 23.9 | 2,827 | 19.1 | 3,142 | 19.3 | 11.1 |
| MAINE | 5 | 0.3 | 2 | 0.1 | -60.0 | 26 | 0.5 | 40 | 0.8 | 53.8 |
| MARYLAND | 1,163 | 17.2 | 1,064 | 13.9 | -8.5 | 1,854 | 11.7 | 2,301 | 12.0 | 24.1 |
| MASSACHUSETTS | 529 | 3.6 | 544 | 4.1 | 2.8 | 1,331 | 3.4 | 1,115 | 2.5 | 16.2 |
| MICHIGAN | 1,759 | 9.3 | 2,098 | 9.4 | 19.3 | 2,273 | 5.9 | 2,454 | 5.6 | 8.0 |
| MINNESOTA | 76 | 1.2 | 71 | 0.9 | -6.6 | 160 | 0.8 | 218 | 0.9 | 36.3 |
| MISSISSIPPI | 950 | 22.7 | 1,118 | 21.8 | 17.7 | 2,218 | 24.7 | 1,865 | 20.5 | -15.9 |
| MISSOURI | 732 | 11.5 | 615 | 8.1 | -16.0 | 1,151 | 5.2 | 1,168 | 4.7 | 1.5 |
| MONTANA | 1 | 0.2 | 0 | 0.0 | -100.0 | 12 | 0.3 | 16 | 0.4 | 33.3 |
| NEBRASKA | 27 | 1.2 | 28 | 0.9 | 3.7 | 161 | 2.2 | 177 | 2.0 | 9.9 |
| NEVADA | 51 | 8.0 | 63 | 6.2 | 23.5 | 49 | 3.3 | 81 | 3.4 | 65.3 |
| NEW HAMPSHIRE | 5 | 0.3 | 2 | 0.1 | -60.0 | 220 | 3.7 | 99 | 1.4 | -55.0 |
| NEW JERSEY | 806 | 8.2 | 737 | 6.9 | -8.6 | 1,734 | 7.1 | 1,605 | 6.8 | -7.4 |
| NEW MEXICO | 30 | 2.2 | 59 | 2.4 | 96.7 | 81 | 1.8 | 92 | 1.8 | 13.6 |
| NEW YORK | 4,540 | 9.3 | 4,600 | 9.0 | 1.3 | 6,285 | 7.5 | 6,214 | 6.7 | -1.1 |
| NORTH CAROLINA | 1,551 | 14.6 | 1,377 | 12.0 | -11.2 | 3,907 | 16.5 | 4,139 | 14.4 | 5.9 |
| NORTH DAKOTA | 4 | 0.2 | 0 | 0.0 | -100.0 | 28 | 0.7 | 16 | 0.4 | -42.9 |
| OHIO | 1,343 | 8.7 | 1,375 | 7.5 | 2.4 | 2,399 | 5.8 | 2,219 | 4.5 | -7.5 |
| OKLAHOMA | 219 | 5.5 | 475 | 7.5 | 116.9 | 506 | 3.9 | 736 | 5.2 | 45.5 |
| OREGON | 41 | 1.0 | 32 | 0.7 | -22.0 | 87 | 0.9 | 106 | 0.8 | 21.8 |
| PENNSYLVANIA | 1,413 | 8.7 | 1,131 | 5.7 | -20.0 | 2,330 | 4.3 | 2,323 | 3.7 | -0.3 |
| RHODE ISLAND | 107 | 3.4 | 128 | 3.3 | 19.6 | 187 | 2.6 | 259 | 2.8 | 38.5 |
| SOUTH CAROLINA | 1,343 | 24.4 | 965 | 18.9 | -28.1 | 1,928 | 17.0 | 1,906 | 13.4 | -1.1 |
| SOUTH DAKOTA | 11 | 0.9 | 4 | 0.4 | -63.6 | 31 | 0.8 | 9 | 0.2 | -71.0 |
| TENNESSEE | 760 | 13.4 | 655 | 9.8 | -13.8 | 1,821 | 10.5 | 1,580 | 8.7 | -13.2 |
| TEXAS | 1,840 | 10.4 | 1,892 | 8.8 | 2.8 | 3,261 | 6.1 | 3,503 | 5.4 | 7.4 |
| UTAH | 16 | 0.7 | 28 | 0.7 | 75.0 | 38 | 0.4 | 47 | 0.4 | 23.7 |
| VERMONT | 7 | 0.5 | 0 | 0.0 | -100.0 | 55 | 1.4 | 29 | 0.6 | -47.3 |
| VIRGINIA | 791 | 11.7 | 1,159 | 13.0 | 46.5 | 2,428 | 11.0 | 3,062 | 10.6 | 26.1 |
| WASHINGTON | 265 | 2.4 | 493 | 3.2 | 86.0 | 326 | 2.0 | 333 | 1.7 | 2.1 |
| WEST VIRGINIA | 104 | 4.4 | 96 | 3.6 | -7.7 | 289 | 3.7 | 199 | 2.6 | -31.1 |
| WISCONSIN | 168 | 2.3 | 244 | 2.7 | 45.2 | 348 | 1.6 | 341 | 1.3 | -2.0 |
| WYOMING | 7 | 0.8 | 8 | 0.5 | 14.3 | 8 | 0.6 | 11 | 0.7 | 37.5 |
| U.S. SERVICE SCHOOLS | 0 | 0.0 | 793 | 8.3 | N/A | 140 | 4.3 | 158 | 4.8 | 12.9 |

**Source:** U.S. Department of Education, National Center for Education Statistics "Degree and Other Formal Awards Conferred" survey and Integrated Postsecondary Education Data System (IPEDS) "Completions" survey. Analysis done by the American Council on Education's Division of Policy Analysis and Research, December 1993.

**Note:** State totals in this table will not add to aggregate totals that appear in other tables in the report because imputations were not performed on state data. Percentages do not total 100 percent.

## Table 20

# Associate and Bachelor's Degrees Conferred to Hispanics by State, 1980–81 and 1990–91

| | ASSOCIATE DEGREES | | | | | BACHELOR'S DEGREES | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1980–81 | Percent of Degrees 1980–81 | 1990–91 | Percent of Degrees 1990–91 | Percent Change 1981–91 | 1980–81 | Precent of Degrees 1980–81 | 1990–91 | Percent of Degrees 1990–91 | Percent Change 1981-91 |
| ALABAMA | 9 | 0.2 | 29 | 0.4 | 222.2 | 48 | 0.3 | 90 | 0.5 | 87.5 |
| ALASKA | 7 | 1.4 | 9 | 1.4 | 28.6 | 4 | 0.9 | 15 | 1.3 | 275.0 |
| ARIZONA | 586 | 11.3 | 641 | 10.6 | 9.4 | 497 | 4.6 | 1,230 | 6.8 | 147.5 |
| ARKANSAS | 9 | 0.5 | 7 | 0.3 | -22.2 | 10 | 0.1 | 30 | 0.4 | 200.0 |
| CALIFORNIA | 6,448 | 10.8 | 6,764 | 11.9 | 4.9 | 4,725 | 5.8 | 7,790 | 7.8 | 64.9 |
| COLORADO | 258 | 5.8 | 513 | 8.3 | 98.8 | 457 | 3.1 | 758 | 4.5 | 65.9 |
| CONNECTICUT | 77 | 1.4 | 125 | 2.6 | 62.3 | 142 | 1.1 | 310 | 2.1 | 118.3 |
| DELAWARE | 7 | 0.6 | 7 | 0.5 | 0.0 | 11 | 0.3 | 26 | 0.6 | 136.4 |
| DISTRICT OF COLUMBIA | 13 | 2.0 | 6 | 1.8 | -53.8 | 136 | 2.0 | 225 | 3.0 | 65.4 |
| FLORIDA | 2,733 | 8.7 | 3,927 | 10.9 | 43.7 | 1,888 | 6.3 | 3,500 | 9.0 | 85.4 |
| GEORGIA | 34 | 0.6 | 61 | 0.8 | 79.4 | 97 | 0.6 | 259 | 1.2 | 167.0 |
| HAWAII | 94 | 4.4 | 40 | 1.7 | -57.4 | 49 | 1.5 | 48 | 1.3 | -2.0 |
| IDAHO | 25 | 1.2 | 29 | 0.9 | 16.0 | 39 | 1.4 | 46 | 1.5 | 17.9 |
| ILLINOIS | 397 | 1.9 | 1,057 | 4.3 | 166.2 | 724 | 1.6 | 1,402 | 2.8 | 93.6 |
| INDIANA | 51 | 0.7 | 59 | 0.7 | 15.7 | 212 | 0.9 | 343 | 1.2 | 61.8 |
| IOWA | 26 | 0.5 | 33 | 0.4 | 26.9 | 78 | 0.5 | 106 | 0.6 | 35.9 |
| KANSAS | 52 | 1.1 | 115 | 2.0 | 121.2 | 116 | 1.0 | 216 | 1.7 | 86.2 |
| KENTUCKY | 10 | 0.2 | 2 | 0.0 | -80.0 | 47 | 0.4 | 42 | 0.3 | -10.6 |
| LOUISIANA | 42 | 2.0 | 60 | 2.1 | 42.9 | 206 | 1.4 | 308 | 1.9 | 49.5 |
| MAINE | 4 | 0.2 | 0 | 0.0 | -100.0 | 9 | 0.2 | 8 | 0.2 | -11.1 |
| MARYLAND | 79 | 1.2 | 89 | 1.2 | 12.7 | 143 | 0.9 | 295 | 1.5 | 106.3 |
| MASSACHUSETTS | 191 | 1.3 | 266 | 2.0 | 39.3 | 526 | 1.4 | 880 | 2.0 | 67.3 |
| MICHIGAN | 204 | 1.1 | 277 | 1.2 | 35.8 | 273 | 0.7 | 462 | 1.0 | 69.2 |
| MINNESOTA | 32 | 0.5 | 23 | 0.3 | -28.1 | 58 | 0.3 | 227 | 1.0 | 291.4 |
| MISSISSIPPI | 7 | 0.2 | 18 | 0.4 | 157.1 | 15 | 0.2 | 13 | 0.1 | -13.3 |
| MISSOURI | 85 | 1.3 | 68 | 0.9 | -20.0 | 157 | 0.7 | 338 | 1.4 | 115.3 |
| MONTANA | 1 | 0.2 | 0 | 0.0 | -100.0 | 15 | 0.4 | 15 | 0.4 | 0.0 |
| NEBRASKA | 17 | 0.7 | 26 | 0.9 | 52.9 | 57 | 0.8 | 105 | 1.2 | 84.2 |
| NEVADA | 21 | 3.3 | 46 | 4.5 | 119.0 | 34 | 2.3 | 72 | 3.0 | 111.8 |
| NEW HAMPSHIRE | 5 | 0.3 | 2 | 0.1 | -60.0 | 37 | 0.6 | 57 | 0.8 | 54.1 |
| NEW JERSEY | 269 | 2.7 | 450 | 4.2 | 67.3 | 799 | 3.3 | 1,060 | 4.5 | 32.7 |
| NEW MEXICO | 249 | 18.5 | 619 | 25.0 | 148.6 | 1,004 | 22.1 | 1,174 | 22.4 | 16.9 |
| NEW YORK | 2,338 | 4.8 | 2,880 | 5.7 | 23.2 | 3,067 | 3.7 | 4,074 | 4.4 | 32.8 |
| NORTH CAROLINA | 61 | 0.6 | 41 | 0.4 | -32.8 | 83 | 0.4 | 171 | 0.6 | 106.0 |
| NORTH DAKOTA | 2 | 0.1 | 0 | 0.0 | -100.0 | 7 | 0.2 | 19 | 0.4 | 171.4 |
| OHIO | 99 | 0.6 | 115 | 0.6 | 16.2 | 235 | 0.6 | 369 | 0.8 | 57.0 |
| OKLAHOMA | 50 | 1.3 | 134 | 2.1 | 168.0 | 81 | 0.6 | 161 | 1.1 | 98.8 |
| OREGON | 52 | 1.2 | 78 | 1.6 | 50.0 | 84 | 0.9 | 131 | 1.0 | 56.0 |
| PENNSYLVANIA | 103 | 0.6 | 151 | 0.8 | 46.6 | 289 | 0.5 | 515 | 0.8 | 78.2 |
| RHODE ISLAND | 46 | 1.5 | 40 | 1.0 | -13.0 | 96 | 1.3 | 107 | 1.2 | 11.5 |
| SOUTH CAROLINA | 29 | 0.5 | 8 | 0.2 | -72.4 | 38 | 0.3 | 71 | 0.5 | 86.8 |
| SOUTH DAKOTA | 33 | 2.6 | 0 | 0.0 | -100.0 | 22 | 0.6 | 5 | 0.1 | -77.3 |
| TENNESSEE | 19 | 0.3 | 18 | 0.3 | -5.3 | 79 | 0.5 | 101 | 0.6 | 27.8 |
| TEXAS | 2,610 | 14.8 | 3,738 | 17.4 | 43.2 | 4,489 | 8.4 | 7,052 | 10.8 | 57.1 |
| UTAH | 43 | 1.8 | 79 | 1.9 | 83.7 | 94 | 1.0 | 124 | 1.1 | 31.9 |
| VERMONT | 2 | 0.2 | 3 | 0.2 | 50.0 | 41 | 1.0 | 36 | 0.8 | -12.2 |
| VIRGINIA | 61 | 0.9 | 140 | 1.6 | 129.5 | 90 | 0.4 | 288 | 1.0 | 220.0 |
| WASHINGTON | 124 | 1.1 | 330 | 2.2 | 166.1 | 142 | 0.9 | 334 | 1.7 | 135.2 |
| WEST VIRGINIA | 6 | 0.3 | 3 | 0.1 | -50.0 | 35 | 0.5 | 24 | 0.3 | -31.4 |
| WISCONSIN | 58 | 0.8 | 48 | 0.5 | -17.2 | 134 | 0.6 | 227 | 0.9 | 69.4 |
| WYOMING | 20 | 2.4 | 64 | 3.9 | 220.0 | 12 | 0.9 | 25 | 1.5 | 108.3 |
| U.S. SERVICE SCHOOLS | 0 | 0.0 | 509 | 5.3 | N/A | 101 | 3.1 | 141 | 4.3 | 39.6 |

**Source:** U.S. Department of Education, National Center for Education Statistics "Degree and Other Formal Awards Conferred" survey and Integrated Postsecondary Education Data System (IPEDS) "Completions" survey. Analysis done by the American Council on Education's Division of Policy Analysis and Research, December 1993.

**Note:** State totals in this table will not add to aggregate totals that appear in other tables in the report because imputations were not performed on state data. Percentages do not total 100 percent.

## Table 21
# Associate and Bachelor's Degrees Conferred to Asian Americans by State, 1980–81 and 1990–91

| | ASSOCIATE DEGREES | | | | | BACHELOR'S DEGREES | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1980–81 | Percent of Degrees 1980–81 | 1990–91 | Percent of Degrees 1990–91 | Percent Change 1981–91 | 1980–81 | Precent of Degrees 1980–81 | 1990–91 | Percent of Degrees 1990–91 | Percent Change 1981–91 |
| ALABAMA | 22 | 0.5 | 15 | 0.2 | -31.8 | 77 | 0.5 | 106 | 0.6 | 37.7 |
| ALASKA | 10 | 2.0 | 11 | 1.7 | 10.0 | 7 | 1.5 | 22 | 1.9 | 214.3 |
| ARIZONA | 65 | 1.3 | 92 | 1.5 | 41.5 | 171 | 1.6 | 511 | 2.8 | 198.8 |
| ARKANSAS | 18 | 1.0 | 18 | 0.7 | 0.0 | 15 | 0.2 | 80 | 1.0 | 433.3 |
| CALIFORNIA | 3,930 | 6.6 | 6,389 | 11.2 | 62.6 | 6,951 | 8.5 | 13,258 | 13.2 | 90.7 |
| COLORADO | 103 | 2.3 | 70 | 1.1 | -32.0 | 238 | 1.6 | 454 | 2.7 | 90.8 |
| CONNECTICUT | 26 | 0.5 | 44 | 0.9 | 69.2 | 139 | 1.0 | 391 | 2.7 | 181.3 |
| DELAWARE | 3 | 0.3 | 16 | 1.2 | 433.3 | 17 | 0.5 | 62 | 1.5 | 264.7 |
| DISTRICT OF COLUMBIA | 10 | 1.6 | 7 | 2.2 | -30.0 | 176 | 2.6 | 269 | 3.5 | 52.8 |
| FLORIDA | 310 | 1.0 | 579 | 1.6 | 86.8 | 318 | 1.1 | 736 | 1.9 | 131.4 |
| GEORGIA | 17 | 0.3 | 76 | 1.0 | 347.1 | 96 | 0.6 | 370 | 1.7 | 285.4 |
| HAWAII | 1,455 | 68.6 | 1,312 | 56.6 | -9.8 | 2,035 | 63.4 | 2,264 | 61.0 | 11.3 |
| IDAHO | 10 | 0.5 | 9 | 0.3 | -10.0 | 44 | 1.6 | 30 | 1.0 | -31.8 |
| ILLINOIS | 282 | 1.3 | 496 | 2.0 | 75.9 | 813 | 1.6 | 2,202 | 4.4 | 170.8 |
| INDIANA | 50 | 0.7 | 27 | 0.3 | -46.0 | 143 | 0.6 | 376 | 1.3 | 162.9 |
| IOWA | 22 | 0.4 | 46 | 0.6 | 109.1 | 77 | 0.5 | 184 | 1.1 | 139.0 |
| KANSAS | 32 | 0.7 | 40 | 0.7 | 25.0 | 64 | 0.5 | 204 | 1.6 | 218.8 |
| KENTUCKY | 17 | 0.4 | 12 | 0.2 | -29.4 | 90 | 0.8 | 81 | 0.6 | -10.0 |
| LOUISIANA | 27 | 1.3 | 17 | 0.6 | -37.0 | 77 | 0.5 | 231 | 1.4 | 200.0 |
| MAINE | 5 | 0.3 | 2 | 0.1 | -60.0 | 19 | 0.4 | 21 | 0.4 | 10.5 |
| MARYLAND | 109 | 1.6 | 157 | 2.1 | 44.0 | 243 | 1.5 | 971 | 5.0 | 299.6 |
| MASSACHUSETTS | 88 | 0.6 | 231 | 1.7 | 162.5 | 611 | 1.6 | 1,501 | 3.4 | 145.7 |
| MICHIGAN | 84 | 0.4 | 157 | 0.7 | 86.9 | 302 | 0.8 | 857 | 1.9 | 183.8 |
| MINNESOTA | 25 | 0.4 | 56 | 0.7 | 124.0 | 160 | 0.8 | 375 | 1.6 | 134.4 |
| MISSISSIPPI | 9 | 0.2 | 20 | 0.4 | 122.2 | 41 | 0.5 | 97 | 1.1 | 136.6 |
| MISSOURI | 53 | 0.8 | 39 | 0.5 | -26.4 | 139 | 0.6 | 449 | 1.8 | 223.0 |
| MONTANA | 0 | 0.0 | 0 | 0.0 | N/A | 11 | 0.3 | 4 | 0.1 | -63.6 |
| NEBRASKA | 8 | 0.3 | 6 | 0.2 | -25.0 | 105 | 1.4 | 98 | 1.1 | -6.7 |
| NEVADA | 11 | 1.7 | 17 | 1.7 | 54.5 | 35 | 2.4 | 94 | 4.0 | 168.6 |
| NEW HAMPSHIRE | 5 | 0.3 | 0 | 0.0 | -100.0 | 18 | 0.3 | 97 | 1.4 | 438.9 |
| NEW JERSEY | 95 | 1.0 | 274 | 2.6 | 188.4 | 310 | 1.3 | 1,076 | 4.6 | 247.1 |
| NEW MEXICO | 20 | 1.5 | 16 | 0.6 | -20.0 | 34 | 0.7 | 60 | 1.1 | 76.5 |
| NEW YORK | 577 | 1.2 | 1,191 | 2.3 | 106.4 | 1,969 | 2.4 | 4,092 | 4.4 | 107.8 |
| NORTH CAROLINA | 31 | 0.3 | 60 | 0.5 | 93.5 | 109 | 0.5 | 397 | 1.4 | 264.2 |
| NORTH DAKOTA | 1 | 0.1 | 3 | 0.2 | 200.0 | 11 | 0.3 | 24 | 0.5 | 118.2 |
| OHIO | 37 | 0.2 | 82 | 0.4 | 121.6 | 220 | 0.5 | 724 | 1.5 | 229.1 |
| OKLAHOMA | 42 | 1.1 | 60 | 0.9 | 42.9 | 97 | 0.8 | 238 | 1.7 | 145.4 |
| OREGON | 112 | 2.6 | 157 | 3.2 | 40.2 | 325 | 3.1 | 584 | 4.5 | 79.7 |
| PENNSYLVANIA | 142 | 0.9 | 143 | 0.7 | 0.7 | 400 | 0.7 | 1,259 | 2.0 | 214.8 |
| RHODE ISLAND | 25 | 0.8 | 56 | 1.4 | 124.0 | 79 | 1.1 | 235 | 2.6 | 197.5 |
| SOUTH CAROLINA | 41 | 0.7 | 28 | 0.5 | -31.7 | 45 | 0.4 | 92 | 0.6 | 104.4 |
| SOUTH DAKOTA | 3 | 0.2 | 0 | 0.0 | -100.0 | 9 | 0.2 | 14 | 0.4 | 55.6 |
| TENNESSEE | 29 | 0.5 | 36 | 0.5 | 24.1 | 103 | 0.6 | 263 | 1.5 | 155.3 |
| TEXAS | 199 | 1.1 | 395 | 1.8 | 98.5 | 619 | 1.2 | 1,921 | 3.0 | 210.3 |
| UTAH | 49 | 2.0 | 98 | 2.4 | 100.0 | 139 | 1.5 | 179 | 1.6 | 28.8 |
| VERMONT | 1 | 0.1 | 0 | 0.0 | -100.0 | 10 | 0.3 | 71 | 1.6 | 610.0 |
| VIRGINIA | 87 | 1.3 | 293 | 3.3 | 236.8 | 145 | 0.7 | 887 | 3.1 | 511.7 |
| WASHINGTON | 231 | 2.1 | 742 | 4.9 | 221.2 | 676 | 4.1 | 1,186 | 6.2 | 75.4 |
| WEST VIRGINIA | 11 | 0.5 | 2 | 0.1 | -81.8 | 27 | 0.3 | 63 | 0.8 | 133.3 |
| WISCONSIN | 39 | 0.5 | 43 | 0.5 | 10.3 | 130 | 0.6 | 345 | 1.3 | 165.4 |
| WYOMING | 4 | 0.5 | 3 | 0.2 | -25.0 | 4 | 0.3 | 14 | 0.9 | 250.0 |
| U.S. SERVICE SCHOOLS | 0 | 0.0 | 242 | 2.5 | N/A | 101 | 3.1 | 127 | 3.9 | 25.7 |

**Source:** U.S. Department of Education, National Center for Education Statistics "Degree and Other Formal Awards Conferred" survey and Integrated Postsecondary Education Data System (IPEDS) "Completions" survey. Analysis done by the American Council on Education's Division of Policy Analysis and Research, December 1993.

**Note:** State totals in this table will not add to aggregate totals that appear in other tables in this report because imputations were not performed on state data. Percentages do not total 100 percent.

## Table 22
# Associate and Bachelor's Degrees Conferred to American Indians by State, 1980–81 and 1990–91

| | ASSOCIATE DEGREES | | | | | BACHELOR'S DEGREES | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1980–81 | Percent of Degrees 1980–81 | 1990–91 | Percent of Degrees 1990–91 | Percent Change 1981–91 | 1980–81 | Precent of Degrees 1980–81 | 1990–91 | Percent of Degrees 1990–91 | Percent Change 1981–91 |
| ALABAMA | 7 | 0.1 | 6 | 0.1 | -14.3 | 15 | 0.1 | 40 | 0.2 | 166.7 |
| ALASKA | 51 | 10.0 | 45 | 7.1 | -11.8 | 25 | 5.4 | 73 | 6.4 | 192.0 |
| ARIZONA | 180 | 3.5 | 228 | 3.8 | 26.7 | 149 | 1.4 | 209 | 1.2 | 40.3 |
| ARKANSAS | 8 | 0.4 | 6 | 0.2 | -25.0 | 13 | 0.2 | 9 | 0.1 | -30.8 |
| CALIFORNIA | 572 | 1.0 | 524 | 0.9 | -8.4 | 697 | 0.9 | 666 | 0.7 | -4.4 |
| COLORADO | 34 | 0.8 | 55 | 0.9 | 61.8 | 65 | 0.4 | 86 | 0.5 | 32.3 |
| CONNECTICUT | 3 | 0.1 | 3 | 0.1 | 0.0 | 33 | 0.2 | 4 | 0.0 | -87.9 |
| DELAWARE | 1 | 0.1 | 0 | 0.0 | -100.0 | 1 | 0.0 | 0 | 0.0 | -100.0 |
| DISTRICT OF COLUMBIA | 3 | 0.5 | 0 | 0.0 | -100.0 | 15 | 0.2 | 9 | 0.1 | -40.0 |
| FLORIDA | 84 | 0.3 | 88 | 0.2 | 4.8 | 28 | 0.1 | 69 | 0.2 | 146.4 |
| GEORGIA | 9 | 0.2 | 2 | 0.0 | -77.8 | 28 | 0.2 | 21 | 0.1 | -25.0 |
| HAWAII | 9 | 0.4 | 0 | 0.0 | -100.0 | 7 | 0.2 | 7 | 0.2 | 0.0 |
| IDAHO | 5 | 0.2 | 24 | 0.8 | 380.0 | 11 | 0.4 | 21 | 0.7 | 90.9 |
| ILLINOIS | 37 | 0.2 | 27 | 0.1 | -27.0 | 118 | 0.3 | 85 | 0.2 | -28.0 |
| INDIANA | 9 | 0.1 | 11 | 0.1 | 22.2 | 41 | 0.2 | 24 | 0.1 | -41.5 |
| IOWA | 20 | 0.4 | 17 | 0.2 | -15.0 | 25 | 0.2 | 24 | 0.1 | -4.0 |
| KANSAS | 131 | 2.9 | 173 | 3.0 | 32.1 | 38 | 0.3 | 38 | 0.3 | 0.0 |
| KENTUCKY | 9 | 0.2 | 5 | 0.1 | -44.4 | 17 | 0.1 | 12 | 0.1 | -29.4 |
| LOUISIANA | 5 | 0.2 | 0 | 0.0 | -100.0 | 32 | 0.2 | 39 | 0.2 | 21.9 |
| MAINE | 4 | 0.2 | 8 | 0.4 | 100.0 | 9 | 0.2 | 11 | 0.2 | 22.2 |
| MARYLAND | 25 | 0.4 | 35 | 0.5 | 40.0 | 25 | 0.2 | 22 | 0.1 | -12.0 |
| MASSACHUSETTS | 31 | 0.2 | 12 | 0.1 | -61.3 | 49 | 0.1 | 41 | 0.1 | -16.3 |
| MICHIGAN | 69 | 0.4 | 98 | 0.4 | 42.0 | 115 | 0.3 | 133 | 0.3 | 15.7 |
| MINNESOTA | 26 | 0.4 | 62 | 0.8 | 138.5 | 54 | 0.3 | 97 | 0.4 | 79.6 |
| MISSISSIPPI | 48 | 1.1 | 13 | 0.3 | -72.9 | 16 | 0.2 | 10 | 0.1 | -37.5 |
| MISSOURI | 16 | 0.3 | 4 | 0.1 | -75.0 | 55 | 0.2 | 73 | 0.3 | 32.7 |
| MONTANA | 52 | 9.7 | 144 | 16.2 | 176.9 | 68 | 1.8 | 90 | 2.3 | 32.4 |
| NEBRASKA | 8 | 0.3 | 29 | 1.0 | 262.5 | 20 | 0.3 | 19 | 0.2 | -5.0 |
| NEVADA | 6 | 0.9 | 9 | 0.9 | 50.0 | 12 | 0.8 | 9 | 0.4 | -25.0 |
| NEW HAMPSHIRE | 4 | 0.2 | 0 | 0.0 | -100.0 | 14 | 0.2 | 23 | 0.3 | 64.3 |
| NEW JERSEY | 24 | 0.2 | 10 | 0.1 | -58.3 | 67 | 0.3 | 25 | 0.1 | -62.7 |
| NEW MEXICO | 111 | 8.2 | 157 | 6.3 | 41.4 | 146 | 3.2 | 121 | 2.3 | -17.1 |
| NEW YORK | 231 | 0.5 | 111 | 0.2 | -51.9 | 313 | 0.4 | 136 | 0.1 | -56.5 |
| NORTH CAROLINA | 69 | 0.7 | 67 | 0.6 | -2.9 | 112 | 0.5 | 171 | 0.6 | 52.7 |
| NORTH DAKOTA | 26 | 1.5 | 108 | 6.1 | 315.4 | 47 | 1.2 | 75 | 1.7 | 59.6 |
| OHIO | 39 | 0.3 | 30 | 0.2 | -23.1 | 74 | 0.2 | 63 | 0.1 | -14.9 |
| OKLAHOMA | 189 | 4.8 | 345 | 5.4 | 82.5 | 323 | 2.5 | 570 | 4.1 | 76.5 |
| OREGON | 30 | 0.7 | 33 | 0.7 | 10.0 | 95 | 1.0 | 103 | 0.8 | 8.4 |
| PENNSYLVANIA | 22 | 0.1 | 19 | 0.1 | -13.6 | 56 | 0.1 | 37 | 0.1 | -33.9 |
| RHODE ISLAND | 1 | 0.0 | 3 | 0.1 | 200.0 | 14 | 0.2 | 8 | 0.1 | -42.9 |
| SOUTH CAROLINA | 19 | 0.3 | 13 | 0.3 | -31.6 | 8 | 0.1 | 8 | 0.1 | 0.0 |
| SOUTH DAKOTA | 71 | 5.6 | 111 | 12.3 | 56.3 | 34 | 0.9 | 56 | 1.5 | 64.7 |
| TENNESSEE | 13 | 0.2 | 0 | 0.0 | -100.0 | 39 | 0.2 | 13 | 0.1 | -66.7 |
| TEXAS | 73 | 0.4 | 35 | 0.2 | -52.1 | 197 | 0.4 | 154 | 0.2 | -21.8 |
| UTAH | 16 | 0.7 | 29 | 0.7 | 81.3 | 48 | 0.5 | 64 | 0.6 | 33.3 |
| VERMONT | 0 | 0.0 | 0 | 0.0 | N/A | 1 | 0.0 | 3 | 0.1 | 200.0 |
| VIRGINIA | 15 | 0.2 | 18 | 0.2 | 20.0 | 28 | 0.1 | 31 | 0.1 | 10.7 |
| WASHINGTON | 84 | 0.8 | 128 | 0.8 | 52.4 | 125 | 0.8 | 169 | 0.9 | 35.2 |
| WEST VIRGINIA | 1 | 0.0 | 0 | 0.0 | -100.0 | 2 | 0.0 | 5 | 0.1 | 150.0 |
| WISCONSIN | 73 | 1.0 | 69 | 0.8 | -5.5 | 58 | 0.3 | 102 | 0.4 | 75.9 |
| WYOMING | 11 | 1.3 | 11 | 0.7 | 0.0 | 2 | 0.2 | 18 | 1.1 | 800.0 |
| U.S. SERVICE SCHOOLS | 0 | 0.0 | 75 | 0.8 | N/A | 9 | 0.3 | 0 | 0.0 | -100.0 |

**Source:** U.S. Department of Education, National Center for Education Statistics "Degree and Other Formal Awards Conferred" survey and Integrated Postsecondary Education Data System (IPEDS) "Completions" survey. Analysis done by the American Council on Education's Division of Policy Analysis and Research, December 1993.

**Note:** State totals in this table will not add to aggregate totals that appear in other tables in this report because imputations were not performed on state data. Percentages do not total 100 percent.

## Table 23
# Associate and Bachelor's Degrees Conferred to Whites by State, 1980–81 and 1990–91

| | ASSOCIATE DEGREES | | | | | BACHELOR'S DEGREES | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1980–81 | Percent of Degrees 1980–81 | 1990–91 | Percent of Degrees 1990–91 | Percent Change 1981–91 | 1980–81 | Precent of Degrees 1980–81 | 1990–91 | Percent of Degrees 1990–91 | Percent Change 1981–91 |
| ALABAMA | 3,565 | 73.7 | 4,982 | 75.7 | 39.7 | 13,004 | 78.7 | 15,077 | 82.4 | 15.9 |
| ALASKA | 424 | 82.8 | 513 | 80.7 | 21.0 | 412 | 88.6 | 947 | 82.5 | 129.9 |
| ARIZONA | 4,078 | 78.7 | 4,205 | 69.3 | 3.1 | 9,610 | 88.8 | 14,760 | 81.7 | 53.6 |
| ARKANSAS | 1,463 | 82.0 | 2,300 | 83.9 | 57.2 | 5,971 | 85.9 | 6,617 | 85.6 | 10.8 |
| CALIFORNIA | 41,848 | 70.3 | 35,352 | 62.1 | -15.5 | 62,102 | 75.9 | 63,718 | 63.4 | 2.6 |
| COLORADO | 3,653 | 81.5 | 4,727 | 76.7 | 29.4 | 13,327 | 90.8 | 14,280 | 85.4 | 7.2 |
| CONNECTICUT | 4,965 | 92.3 | 4,122 | 86.6 | -17.0 | 12,486 | 93.8 | 12,746 | 87.1 | 2.1 |
| DELAWARE | 1,078 | 90.2 | 1,151 | 88.3 | 6.8 | 2,875 | 90.0 | 3,583 | 89.4 | 24.6 |
| DISTRICT OF COLUMBIA | 198 | 31.0 | 29 | 8.9 | -85.4 | 4,200 | 61.7 | 4,123 | 54.2 | -1.8 |
| FLORIDA | 24,411 | 77.5 | 27,650 | 77.1 | 13.3 | 24,312 | 81.1 | 30,085 | 77.3 | 23.7 |
| GEORGIA | 5,001 | 83.7 | 6,152 | 77.5 | 23.0 | 14,150 | 83.2 | 17,638 | 79.0 | 24.7 |
| HAWAII | 522 | 24.6 | 613 | 26.5 | 17.4 | 869 | 27.1 | 1,007 | 27.1 | 15.9 |
| IDAHO | 1,926 | 95.6 | 2,911 | 93.4 | 51.1 | 2,600 | 94.2 | 2,878 | 91.8 | 10.7 |
| ILLINOIS | 17,958 | 84.8 | 20,141 | 82.3 | 12.2 | 38,859 | 87.4 | 41,647 | 82.5 | 7.2 |
| INDIANA | 5,849 | 84.4 | 7,848 | 88.7 | 34.2 | 23,197 | 93.4 | 25,266 | 87.5 | 8.9 |
| IOWA | 5,436 | 97.0 | 7,524 | 93.1 | 38.4 | 13,767 | 95.3 | 15,713 | 92.5 | 14.1 |
| KANSAS | 3,995 | 87.5 | 4,888 | 84.0 | 22.4 | 10,825 | 92.7 | 11,556 | 88.7 | 6.8 |
| KENTUCKY | 4,432 | 92.0 | 5,081 | 88.2 | 14.6 | 10,632 | 92.4 | 12,009 | 92.6 | 13.0 |
| LOUISIANA | 1,445 | 69.9 | 1,923 | 67.1 | 33.1 | 11,162 | 75.3 | 11,898 | 73.0 | 6.6 |
| MAINE | 1,707 | 98.6 | 1,881 | 88.8 | 10.2 | 4,724 | 98.1 | 4,527 | 86.9 | -4.2 |
| MARYLAND | 5,202 | 76.7 | 6,125 | 80.0 | 17.7 | 12,776 | 80.3 | 14,959 | 77.8 | 17.1 |
| MASSACHUSETTS | 13,528 | 92.5 | 10,249 | 76.9 | -24.2 | 35,310 | 91.0 | 33,019 | 74.2 | -6.5 |
| MICHIGAN | 16,330 | 86.2 | 18,727 | 83.5 | 14.7 | 34,500 | 89.3 | 38,933 | 88.1 | 12.8 |
| MINNESOTA | 6,344 | 96.3 | 7,414 | 92.6 | 16.9 | 18,651 | 96.2 | 20,622 | 87.3 | 10.6 |
| MISSISSIPPI | 3,142 | 75.0 | 3,743 | 73.1 | 19.1 | 6,526 | 72.7 | 7,013 | 77.0 | 7.5 |
| MISSOURI | 5,416 | 84.8 | 6,300 | 83.3 | 16.3 | 20,122 | 91.3 | 21,837 | 87.6 | 8.5 |
| MONTANA | 474 | 88.8 | 597 | 67.1 | 25.9 | 3,671 | 96.2 | 3,558 | 91.9 | -3.1 |
| NEBRASKA | 2,254 | 96.7 | 2,785 | 93.9 | 23.6 | 7,012 | 94.7 | 8,217 | 91.9 | 17.2 |
| NEVADA | 552 | 86.1 | 844 | 83.3 | 52.9 | 1,305 | 88.4 | 2,043 | 86.1 | 56.6 |
| NEW HAMPSHIRE | 1,953 | 98.6 | 2,108 | 79.3 | 7.9 | 5,632 | 93.5 | 6,262 | 87.9 | 11.2 |
| NEW JERSEY | 8,346 | 84.9 | 8,451 | 79.0 | 1.3 | 21,228 | 86.7 | 18,504 | 78.3 | -12.8 |
| NEW MEXICO | 928 | 68.9 | 1,524 | 61.5 | 64.2 | 3,239 | 71.3 | 3,647 | 69.6 | 12.6 |
| NEW YORK | 40,460 | 83.1 | 37,093 | 72.9 | -8.3 | 70,815 | 84.5 | 68,314 | 73.8 | -3.5 |
| NORTH CAROLINA | 8,828 | 83.2 | 9,227 | 80.5 | 4.5 | 19,236 | 81.1 | 22,976 | 79.8 | 19.4 |
| NORTH DAKOTA | 1,653 | 97.5 | 1,574 | 88.2 | -4.8 | 3,657 | 96.4 | 4,229 | 94.3 | 15.6 |
| OHIO | 13,529 | 87.5 | 15,580 | 84.5 | 15.2 | 37,675 | 91.2 | 42,887 | 87.9 | 13.8 |
| OKLAHOMA | 3,292 | 83.4 | 5,197 | 81.5 | 57.9 | 11,013 | 85.9 | 11,695 | 83.1 | 6.2 |
| OREGON | 4,024 | 93.4 | 4,018 | 82.9 | -0.1 | 8,768 | 89.6 | 10,469 | 80.8 | 19.4 |
| PENNSYLVANIA | 14,542 | 89.3 | 16,665 | 83.8 | 14.6 | 50,864 | 93.4 | 55,947 | 90.0 | 10.0 |
| RHODE ISLAND | 2,934 | 93.1 | 3,366 | 85.6 | 14.7 | 6,770 | 93.2 | 8,084 | 88.3 | 19.4 |
| SOUTH CAROLINA | 4,009 | 72.9 | 3,966 | 77.8 | -1.1 | 9,240 | 81.4 | 11,371 | 79.8 | 23.1 |
| SOUTH DAKOTA | 1,137 | 89.4 | 703 | 77.6 | -38.2 | 3,693 | 95.5 | 3,440 | 93.5 | -6.9 |
| TENNESSEE | 4,660 | 82.3 | 5,179 | 77.1 | 11.1 | 15,053 | 86.5 | 15,703 | 86.9 | 4.3 |
| TEXAS | 12,609 | 71.5 | 14,915 | 69.3 | 18.3 | 42,863 | 80.0 | 50,124 | 77.0 | 16.9 |
| UTAH | 2,215 | 91.9 | 3,756 | 91.6 | 69.6 | 8,493 | 91.0 | 10,035 | 88.5 | 18.2 |
| VERMONT | 1,265 | 98.4 | 1,188 | 96.8 | -6.1 | 3,796 | 95.6 | 4,255 | 93.5 | 12.1 |
| VIRGINIA | 5,756 | 85.2 | 7,059 | 79.5 | 22.6 | 19,194 | 86.9 | 23,244 | 80.3 | 21.1 |
| WASHINGTON | 10,064 | 90.7 | 12,698 | 83.3 | 26.2 | 14,799 | 88.9 | 15,408 | 80.2 | 4.1 |
| WEST VIRGINIA | 2,116 | 88.7 | 2,436 | 92.6 | 15.1 | 7,198 | 93.2 | 7,051 | 93.6 | -2.0 |
| WISCONSIN | 6,867 | 95.1 | 8,071 | 89.2 | 17.5 | 21,033 | 95.5 | 23,865 | 90.6 | 13.5 |
| WYOMING | 781 | 93.2 | 1,323 | 81.0 | 69.4 | 1,253 | 94.9 | 1,429 | 87.1 | 14.0 |
| U.S. SERVICE SCHOOLS | 0 | 0.0 | 7,435 | 77.6 | N/A | 2,850 | 87.2 | 2,784 | 85.0 | -2.3 |

**Source:** U.S. Department of Education, National Center for Education Statistics "Degree and Other Formal Awards Conferred" survey and Integrated Postsecondary Education Data System (IPEDS) "Completions" survey. Analysis done by the American Council on Education's Division of Policy Analysis and Research, December 1993.

**Note:** State totals in this table will not add to aggregate totals that appear in other tables in this report because imputations were not performed on state data. Percentages do not total 100 percent.

## Table 24
# College Persistence Rates by Institutional Type and Race/Ethnicity, Spring 1984 and Spring 1992

| | Total | African American | American Indian | Asian American | Hispanic | White |
|---|---|---|---|---|---|---|
| **1980 HIGH SCHOOL AND BEYOND STUDY** | | | (percent) | | | |
| Four-Year Persistence Rate | | | | | | |
| Four-Year Full-time Students | 54 | 44 | — | 61 | 42 | 56 |
| **1989-90 BEGINNING POSTSECONDARY STUDENTS STUDY** | | | | | | |
| All First-time Postsecondary Entrants | | | | | | |
| Three-year Persistence Rate | 41 | 31 | 27 | 63 | 40 | 41 |
| Three-year Degree Attainment Rate | 18 | 21 | 16 | 12 | 16 | 18 |
| Two-Year Public First-Time Students | | | | | | |
| Three-year Persistence Rate | 32 | 24 | — | — | 39 | 30 |
| Three-year Degree Attainment Rate | 19 | 23 | — | — | 13 | 20 |
| Four-Year Public First-Time Students | | | | | | |
| Three-year Persistence Rate | 62 | 57 | — | 75 | 64 | 61 |
| Three-year Degree Attainment Rate | 4 | 2 | — | 3 | 5 | 4 |
| Four-Year Independent First-Time Students | | | | | | |
| Three-year Persistence Rate | 63 | 58 | — | 71 | 65 | 63 |
| Three-year Degree Attainment Rate | 5 | 5 | — | 5 | 1 | 6 |

**Sources:** Carroll, Dennis. *College Persistence and Degree Attainment for 1980 High School Graduates: Hazards for Transfers, Stopouts, and Part-timers.* Washington, DC: Office of Educational Research and Improvement, January 1989. U.S. Department of Education, National Center for Education Statistics, *Persistence and Attainment Education for Beginning AY 1989–90 Students as of Spring 1992.* Washington, DC: Office of Educational Research and Improvement, November 1993, NCES 94-477. U.S. Department of Education, Planning and Evaluation Service, *Survey on Retention at Higher Education Institutions*, No. 14, 1991.

— Too few cases for reliable estimates

## Table 25
# Attrition Rates for 1989–90 Entrants at Public and Independent Four-Year Institutions

| | PUBLIC FOUR-YEAR | | | INDEPENDENT FOUR-YEAR | | |
|---|---|---|---|---|---|---|
| | Left College | | | Left College | | |
| | By 6/90 | 7/90–6/91 | After 6/91 | By 6/90 | 7/90–6/91 | After 6/91 |
| **RACE/ETHNICITY** | | | (percent) | | | |
| American Indian | — | — | — | — | — | — |
| Asian American | 4 | 8 | 11 | 5 | 1 | 18 |
| African American | 17 | 7 | 18 | 9 | 8 | 21 |
| Hispanic | 14 | 10 | 8 | 9 | 12 | 13 |
| White | 13 | 7 | 14 | 10 | 6 | 15 |

Source: U.S. Department of Education, National Center for Education Statistics, *Persistence and Attainment in Postsecondary Education for Beginning AY 1989–90 Students as of Spring 1992.* Washington, DC: U.S. Department of Education, November 1993.



BEST COPY AVAILABLE

## Table 26
# Baccalaureate Completion Rates by Race/Ethnicity

| | Total | African American | American Indian | Asian American | Hispanic | White |
|---|---|---|---|---|---|---|
| **1980 HIGH SCHOOL AND BEYOND STUDY**[a] | | | (percent) | | | |
| First-time, full-time four-year Students | 53 | 33 | — | 56 | 31 | 55 |
| **SURVEY ON RETENTION AT HIGHER EDUCATION INSTITUTIONS**[b] | | | | | | |
| First-time, full-time four-year Students | | | | | | |
| All four-year Institutions | 49 | — | — | — | — | — |
| Doctorate-granting | 57 | — | — | — | — | — |
| Comprehensive | 42 | — | — | — | — | — |
| Public | 45 | — | — | — | — | — |
| Independent | 56 | — | — | — | — | — |
| **1993 NCAA DIVISION I GRADUATION RATES**[c] | | | | | | |
| All Institutions (Total) | 54 | 32 | 30 | 63 | 41 | 56 |
| Men | 52 | 29 | 28 | 61 | 39 | 55 |
| Women | 55 | 35 | 31 | 65 | 43 | 58 |
| Public Institutions (Total) | 50 | 29 | 27 | 59 | 36 | 53 |
| Men | 48 | 26 | 25 | 57 | 34 | 51 |
| Women | 52 | 32 | 29 | 62 | 38 | 55 |
| Independent Institutions (Total) | 68 | 50 | 49 | 76 | 64 | 71 |
| Men | 67 | 46 | 49 | 75 | 62 | 70 |
| Women | 69 | 53 | 48 | 78 | 66 | 71 |

**Sources:** Carroll, Dennis. *College Persistence and Degree Attainment for 1980 High School Graduates: Hazards for Transfers, Stopouts, and Part-timers.* Washington, DC: Office of Educational Research and Improvement, January 1989. The National Collegiate Athletic Association. *Division I Graduation-Rates Report* 1993. U.S. Department of Education, Planning and Evaluation Service. *Survey on Retention at Higher Education Institutions.* "10, 14, 1991.

— Too few cases for reliable estimates.

[a] Graduation rates are based on 1980 high school graduates who entered four-year institutions on a full-time basis and completed within five and one-half years or as of spring 1986.

[b] Graduation rates are based on first-time full-time students who entered four-year institutions in fall 1984 and completed a degree at the same institution by 1989–90.

[c] Graduation rates are for full-time, degree-seeking students at 298 NCAA Division I institutions. The six-year completion rate is presented for all students who entered in 1983–84, 1984–85, and 1985–86. Figures presented are averages for all entrants in these three classes and represent the percentage who graduated by August 1992.



BEST COPY AVAILABLE

# American Council on Education
# Commission on Minorities in Higher Education

**Chair**

Daniel D. Angel, President,
Stephen F. Austin State University

**Class of 1995**

Christopher N. Breiseth, President,
Wilkes University

Robert L. Breuder, President,
Pennsylvania College of
Technology

Joanne B. Lantz, Chancellor,
Indiana University-Purdue
University at Fort Wayne

Reverend John M. Moder, President,
St. Mary's University

Eduardo Padron, President,
Miami-Dade Community College,
Wolfson Campus

Regina S. Peruggi , President,
Marymount Manhattan College

Narcisa A. Polonio , President,
Harcum Junior College

Clyde Sakamoto , Provost,
Maui Community College

G. Warren Smith, President,
Southeastern Louisiana
University

**Class of 1994**

Oswald P. Bronson Sr., President,
Bethune-Cookman College

Josephine D. Davis, President,
City University of New York,
York College

Lois B. Defleur, President,
State University of New York at
Binghamton

Evan S. Dobelle, Superintendent,
San Francisco Community
College District

Vera K. Farris, President,
Stockton State College

Emita B. Hill, Chancellor,
Indiana University at Kokomo

Judith L. Kuipers, Chancellor,
University of Wisconsin,
LaCrosse

Rev. Paul L. Locatelli SJ, President,
Santa Clara University

Herman Lujan, President,
University of Northern Colorado

Sylvia Ramos, President,
Houston Community College,
Southeast Side Campus

Joan Wadlow, Chancellor,
University of Alaska, Fairbanks

Harold R. Wilde, President,
North Central College

**Class of 1993**

Robert C. Detweiler, President,
California State University-
Dominguez Hills

Patricia O. Ewers, President,
Pace University-New York
Campus

Norman C. Francis, President,
Xavier University of Louisiana

Robert B. Gex, Chancellor,
Southern University of New
Orleans

Henry Givens, Jr., President,
Harris-Stowe State College

Zelema M. Harris, President,
Parkland College

Gretchen V. Kreuter, Interim
President, Olivet College

Donald L. Langenberg, Chancellor
The University of Maryland
System Office

Earl E. Lazerson, President
Southern Illinois University at
Edwardsville

Earnest A. Martinez, President,
and Superintendent,
Cerritos College

Francis Mertz, President,
Fairleigh Dickinson University

Margaret N. Perry, Chancellor,
University of Tennessee at Martin

Carlos A. Plaza, President,
Saint Augustine College

F.C. Richardson, President,
State University of New York
College at Buffalo

***Ex Officio Members***

William H. Gray III , President ,
United Negro College Fund Inc.

Samuel Myers , President,
National Association for Equal
Opportunity in Higher Education

Donna Shavlik , Director,
Office of Women in Higher
Education, American Council on
Education

# 1993 ACE Board of Directors

***Executive Committee***

Edward A. Malloy, CSC, President, University of Notre Dame, Chair

Juliet V. Garcia, President, University of Texas at Brownsville, Vice Chair

Hoke L. Smith, President, Towson State University, Immediate Past Chair

James E. Lyons, Sr., President, Jackson State University, Secretary

Thomas Ehrlich, President, Indiana University

Ofelia Garcia, President, Rosemont College

Thomas Gonzales, President, Front Range Community College

Robert H. Atwell, President, American Council on Education

**Class of 1993**

Myles Brand, President, University of Oregon

Thomas Gonzales, President, Front Range Community College (CO)

Franklyn G. Jenifer, President, Howard University (DC)

James E. Lyons, Sr., President, Jackson State University (MS)

Hoke L. Smith, President, Towson State University (MD)

Niara Sudarkasa, President, Lincoln University (PA)

Michael Timpane, President, Teachers College, Columbia University (NY)

**Class of 1994**

Jacquelyn M. Belcher, President, Minneapolis Community College (MN)

Carol A. Cartwright, President, Kent State University (OH)

Thomas Ehrlich, President, Indiana University

Claire Gaudiani, President, Connecticut College

William R. Harvey, President, Hampton University (VA)

Edward A. Malloy, CSC, President, University of Notre Dame (IN)

Robert H. McCabe, President, Miami-Dade Community College (FL)

**Class of 1995**

John T. Casteen, III, President, University of Virginia

Dolores E. Cross, President, Chicago State University (IL)

Juliet V. Garcia, President, University of Texas at Brownsville

Ofelia Garcia, President, Rosemont College (PA)

David Iha, Provost, Kauai Community College (HI)

Anne E. Mulder, President, Lake Michigan College (MI)

Barry A. Munitz, Chancellor, The California State University System

Michele Tolela Myers, President, Denison University (OH)

***Elected Officers of Associations— Ex officio for three-year terms:***

Bette E. Landman, President, Beaver College (PA), *Association of American Colleges*

John S. Keyser, President, Clackamas Community College (OR), *American Association of Community Colleges*

John E. Van de Wetering, President, State University College of New York at Brockport, *American Association of State Colleges & Universities*

Samuel O. Thier, President, Brandeis University (MA), *Association of American Universities*

Jeanne O'Laughlin, OP, President, Barry University (FL), *Association of Catholic Colleges & Universities*

Albert J. DiUlio, SJ, President, Marquette University (WI), *Association of Jesuit Colleges & Universities*

Anita Pampusch, President, College of St. Catherine (MN), *Council of Independent Colleges*

Arthur Thomas, President, Central State University (OH), *National Association for Equal Opportunity in Higher Education*

Author E. Hughes, President, University of San Diego (CA), *National Association of Independent Colleges & Universities*

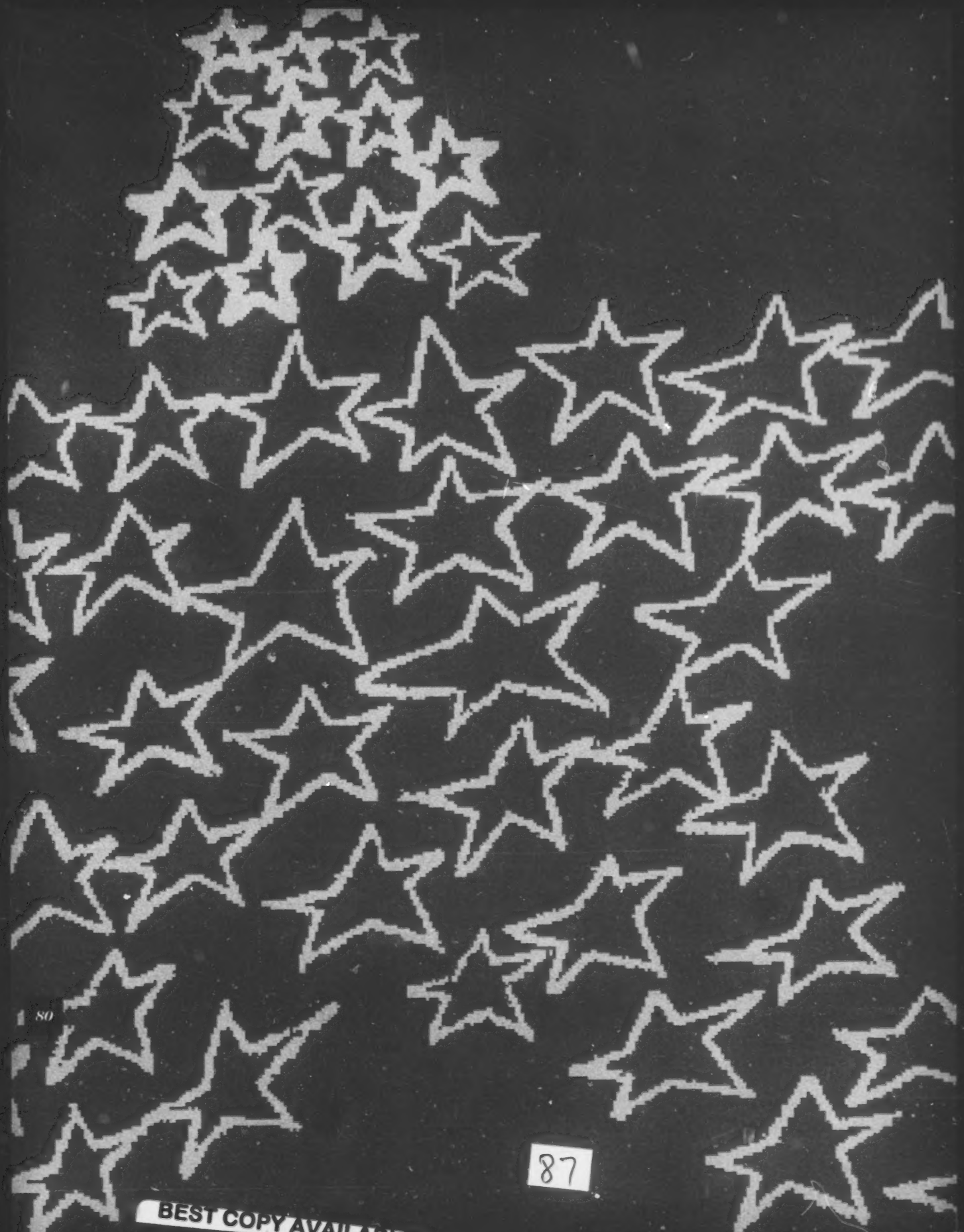
Donald C. Swain, President, University of Louisville (KY), *National Association of State Universities & Land-Grant Colleges*

***Elected Officers of Associations— Ex officio for one-year terms:***

Janet Rodgers, Dean and Professor, Philip Y. Hahn School of Nursing, University of San Diego (CA), *American Association of Colleges of Nursing*

Donald Stewart, President, *The College Board*

Phillip M. Grier, Executive Director, National Association of College and University Attorneys, *Washington Higher Education Secretariat*





87

BEST COPY AVAILABLE

American Council
on Education

Office of Minorities
in Higher Education

One Dupont Circle
Washington, DC
20036

This report has been produced under a generous grant from the Philip Morris Companies Inc.



BEST COPY AVAILABLE